

SOIL SAMPLING RESULTS
FOR THE OLD LEAD AZIDE BUILDING SUMP AND DRAINAGE AREA;
BUILDING 110 SUMP, DRAINAGE AREA, AND POND 342;
RAVINE BELOW THE PHOSPHOROUS STABILIZING AREA;

WIIITTAKER CORPORATION
BERMITE DIVISION
22116 WEST SOLEDAD CANYON ROAD
SANTA CLARITA, CALIFORNIA
DELTA PROJECT NO. 40-90-038

AND BUILDING 228 AREA

Delta Environmental Consultants, Inc.



3300 Data Drive, Suite 100 Rancho Cordova, CA 95670 916/638-2085 FAX:916/638-8385

April 2, 1991

Mr. Alan Sorsher Toxic Substances Control Division California Department of Health Services 1405 North San Fernando Boulevard, Suite 300 Burbank, California 91504

Subject:

Soil Sampling Results for Miscellaneous Solid Waste Management Units

Whittaker Corporation, Bermite Division

22116 West Soledad Canyon Road, Santa Clarita, California

Delta Project No. 40-90-038

Dear Mr. Sorsher:

Delta Environmental Consultants, Inc. (Delta), on behalf of our client Whittaker Corporation is submitting the soil sampling results for the miscellaneous solid waste management units as requested in Count 14, Items 2, 3a, and 3c of the California Department of Health Services (DHS) Report of Violations and Schedule of Compliance, dated July 31, 1990.

The sampling and analyses were completed in accordance with the work plan submitted on March 23, 1990, to and approved by DHS in a letter dated December 10, 1990, from Mr. Alan Sorsher.

The purpose of the soil sampling and chemical analysis was to determine whether significant levels of hazardous waste constituents were present in the soils at the former old lead azide building sump and drainage area; former Building 110 sump, drainage area, and pond 342; ravine below the phosphorous stabilizing area and the area around the former Building 228.

Mr. Alan Sorsher April 2, 1991 Page 2

It is Delta's opinion that the concentrations of metals detected in the soils at the miscellaneous solid waste management units pose no threat to the environment or human health, and that no further action is required at these units.

If you have any questions regarding the report, please call me at (916) 638-2085.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

michald. O'Orien for

Barbara J. Mickelson, P.E.

District Manager

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Mr. David W. Hogan, City of Santa Clarita

Mr. Brian Lewis, California Department of Health Services

SOIL SAMPLING RESULTS FOR THE OLD LEAD AZIDE BUILDING SUMP AND DRAINAGE AREA; BUILDING 110 SUMP, DRAINAGE AREA, AND POND 342; RAVINE BELOW THE PHOSPHOROUS STABILIZING AREA; AND BUILDING 228 AREA

WHITTAKER CORPORATION
BERMITE DIVISION

22116 WEST SOLEDAD CANYON ROAD
SANTA CLARITA, CALIFORNIA
DELTA PROJECT NO. 40-90-038

Prepared by:

DELTA ENVIRONMENTAL CONSULTANTS, INC. 3330 Data Drive, Suite 100 Rancho Cordova, California 95670 (916) 638-2085

April 5, 1991

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WHITTAKER CORPORATION

BERMITE DIVISION

22116 WEST SOLEDAD CANYON ROAD

SANTA CLARITA, CALIFORNIA

DELTA PROJECT NO. 40-90-038

1.0 INTRODUCTION

Delta Environmental Consultants, Inc. (Delta), has been authorized by Whittaker Corporation, Bermite Division, to prepare this soil sampling report in response to Count 14, Items 2, 3a, and 3c of the California Department of Health Services (DHS) Report of Violations and Schedule of Compliance, dated July 31, 1990, for the Bermite facility near Santa Clarita, California (Figure 1).

1.1 Purpose

The purpose of the soil sampling and chemical analysis was to determine whether significant levels of hazardous waste constituents were present in the soils at the former old lead azide building sump and drainage area; former Building 110 sump, drainage area, and pond 342; ravine below the phosphorous stabilizing area; and the area around the former Building 228.

1.2 Scope of Work

The work described herein was completed in accordance with the *Work Plan* submitted on March 23, 1990, to and approved by DHS in a letter dated December 10, 1990, from Mr. Alan Sorsher. The following scope of work was performed to accomplish the objective outlined above.

Old Lead Azide Building Sump and Drainage Area

- Drilled one soil boring adjacent to the former sump to a total depth of 10 feet below the ground surface. Collected two soil samples from the soil boring at depths of 5.5 and 10 feet below the ground surface for chemical analysis of total lead by U.S. Environmental Protection Agency (EPA) Method 7420.
- Drilled one soil boring approximately 15 feet downgradient (southwest) of the former sump location to a depth of 10 feet below the ground surface. Collected two soil samples from the soil boring at depths of 5.5 and 10 feet below the ground surface for chemical analysis of total lead by EPA Method 7420.

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Building 110 Sump, Drainage Area, Pond 342 Area, and Background

• Drilled one soil boring in the area identified by a Bermite employee as the former sump location to a total depth of 10 feet below the ground surface. Collected one soil sample from the soil boring at a depth of 10 feet below the ground surface for chemical analysis of chlorides.

Drilled one soil boring approximately 12 feet downgradient (southeast) of the former sump
location to a depth of 10 feet below the ground surface. Collected one soil sample from the soil
boring at a depth of 10 feet below the ground surface for chemical analysis of chlorides.

Drilled one soil sample through the former 342 pond area to a total depth of 15 feet below the
ground surface. Collected one soil sample from the soil boring at a depth of 10 feet below the
ground surface for chemical analysis of chlorides.

 Collected one soil sample from the ground surface to a depth of 0.5 foot from an area 250 feet north of Building 110 as a background soil sample for chemical analysis of chlorides.

Ravine Below the Phosphorous Stabilizing Area

- Set up a 25-foot-wide and 50-foot-long grid with 5-foot by 5-foot cells for field screening with an organic vapor analyzer (OVA).
- Drilled four soil borings at randomly selected grid point locations to depths of 10 feet below the ground surface. Collected and submitted seven soil samples from depths of 5 and 10 feet below the ground surface for chemical analysis by EPA Methods 8240 and 8270 and for California Assessment Manual (CAM) metals.

Building 228 Area

- Set up a 30-foot-wide and 40-foot-long grid with 10-foot cells for field screening with an OVA.
- Drilled four soil borings at randomly selected grid point locations to depths of 10 feet below the
 ground surface. Collected and submitted seven soil samples from depths of 5 and 10 feet below
 the ground surface for chemical analysis by EPA Methods 8240 and 8270 and for CAM metals.

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2.0 SOIL SAMPLING RESULTS

2.1 Old Lead Azide Building Sump and Drainage Area

On December 13, 1990, a Bermite employee identified the former location of the sump at the former old

lead azide building (Figure 2). The excavation of the former sump measured 6 feet by 4 feet and was 5 feet

deep (Photograph 1, Appendix A). Delta supervised the drilling of two soil borings near this location. One

soil boring (B-5) was drilled adjacent to the former sump and soil samples were collected at 5.5- and 10-foot

intervals for chemical analysis. A second soil boring (B-6) was drilled 15 feet southwest of soil boring B-5

along the drainage area (Photograph 2), and soil samples were collected at 5.5- and 10-foot intervals for

chemical analysis. Soil boring locations are presented in Figure 2. Soil sampling procedures are presented

in Appendix B.

Classification of the soil samples collected from the soil borings indicated the soils underlying this area to

a depth of 10 feet were comprised of grayish-brown, fine-grained, dry, silty sand with gravel. Soil boring logs

are presented in Appendix C.

All four soil samples were submitted to FGL Laboratories (FGL), a state-certified laboratory, for chemical

analyses of total lead by EPA Method 7420.

The results of the chemical analysis of total lead by EPA Method 7420 indicated concentrations of lead

ranged from 5.0 to 7.0 parts per million (ppm) except for a concentration of 79.0 ppm at soil boring B-6 at

a depth of 5.5 feet. Table 1 presents the results of the chemical analysis for total lead. Laboratory data

sheets are presented in Appendix D.

2.2 Building 110 Sump, Drainage Area, Former Pond 342 Area, and Background

On December 13, 1990, a Bermite employee identified the location of the former sump at Building 110 and

the location of the former 342 pond (Figure 3). Delta supervised the drilling of three soil borings in this

area. One soil boring (B-12) was drilled at the sump location (Photograph 3, Appendix A) to a total depth

of 11.5 feet. A soil sample was collected at 10.5 feet below the ground surface for chemical analysis. The

second soil boring (B-13) was drilled next to the sump location approximately 12 feet southeast of the sump

to a total depth of 11.5 feet. A soil sample was collected at 10.5 feet below the ground surface for chemical

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analysis. The third soil boring (B-14) was drilled within the former 342 pond area (Photograph 4) to a depth

of 15 feet. A soil sample was collected at a depth of 15 feet below the ground surface for chemical analysis.

A fourth soil sample was collected for background chloride levels at approximately 250 feet north of Building

110 by driving a brass tube into the ground surface to a depth of 6 inches. The location of the soil borings

and background sample are shown in Figure 3. Soil sampling methodologies are presented in Appendix B.

Classification of the soil samples collected from the soil borings (B-12 and B-13) near Building 110 indicated

the soils underlying this area to a depth of 11.5 feet were comprised of yellowish-brown, fine-grained, dry,

silty sands. Classification of the soil samples collected from soil boring B-14 over the former pond area

indicated the soils underlying this area to a depth of 15.5 feet were comprised of brown, fine-grained, slightly

moist, clayey sands. Soil boring logs are presented in Appendix C.

All four soil samples were submitted to FGL for chemical analysis of chlorides. A deionized water leach

was conducted on each soil sample which was followed by filtration and determination of chloride

concentration by titration.

The results of the chemical analysis for chloride indicated concentrations ranged from 3.0 to 20.0 ppm in

the soil samples collected. A summary of the chemical results for chloride is presented in Tables 2 and 3.

Laboratory data sheets are presented in Appendix E.

2.3 Ravine Below the Phosphorous Stabilizing Area

On December 12, 1990, a Bermite employee identified the area in which several 55-gallon drums were

discarded and subsequently removed. A grid 25 feet wide and 50 feet long with 5-foot by 5-foot cells

(Photographs 5 and 6, Appendix A) was marked off over the area by a Delta geologist (Figure 3). A visual

inspection of the area for contamination was conducted. No evidence of contamination on the ground

surface was noted.

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In accordance with the work plan, each cell was screened for volatile organic compounds (VOCs) with an OVA. A manually-operated power auger with 2-inch-diameter flights was used to drill a hole 3 feet below the ground surface at each cell location. The hole was covered with plastic for a minimum of 15 minutes before inserting the tip of the OVA through the plastic to record a reading. Field screening results are summarized in Table 4. Figure 4 shows the grid with the identification of each cell. All of the cells screened

registered a zero on the OVA, except Cell 17, which registered 1 ppm.

On December 13, 1990, a Delta geologist supervised the drilling of four soil borings in this area. One soil boring (B-8) was drilled at Cell 17 due to an OVA reading of 1.0. A soil sample was collected at 3 feet

below the ground surface. Soil sampling procedures are presented in Appendix B.

A random numbers generation table was used to select three cells for soil sampling. Cells 5, 22, and 46 were selected and soil borings B-7, B-9, and B-10 were drilled at these locations. Soil samples were collected at 5 and 10 feet below the ground surface for chemical analysis.

All seven soil samples were submitted to FGL for chemical analysis of purgeable organic compounds by EPA Method 8240, semivolatile priority pollutants by EPA Method 8270, and total concentrations of CAM metals as specified in the California Administrative Code (CAC), Title 22, Chapter 30, Article 11.

Classification of the soil samples collected from the soil borings indicated the soils underlying this area to a depth of 11.5 feet were comprised of grayish-brown, coarse-grained, dry, silty sands. Soil boring logs are presented in Appendix C.

The results of the chemical analysis for purgeable organic compounds by EPA Method 8240 and for semivolatile priority pollutants by EPA Method 8270 indicated that all constituents analyzed were below the detection limits set in SW-846. Laboratory data sheets are presented in Appendix F.

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The results of the chemical analysis for the CAM metals indicated that all the constituents analyzed were below the laboratory detection limit except for the following metals: barium, copper, lead, nickel, and vanadium. Barium was detected in soil boring B-10 at a depth of 10 feet at a concentration of 68.0 ppm. The laboratory detection limit for barium is 50.0 ppm. Copper was detected in two soil borings; B-9, at a depth of 5 feet at a concentration of 12.0 ppm; and B-10, at a depth of 10 feet at a concentration of 10.0 ppm. The laboratory detection limit for copper was set at 10.0 ppm. Lead was detected in the soils from each of the soil borings at depths of 5 and 10 feet at concentrations between 4.0 and 6.0 ppm. The only exception was at B-7 at a depth of 10 feet, where lead was less than the detection limit of 4.0 ppm. Nickel was detected in the soils from all of the soil borings at depths of 5 and 10 feet except for soil boring B-7. Concentrations of nickel were between 10.0 and 18.0 ppm with a detection limit of 10.0 ppm. Vanadium was detected in the soils from all of the soil borings at depths of 5 and 10 feet except for soil boring B-7 at 10 feet. Concentrations of vanadium detected ranged from 13.0 to 22.0 ppm with a laboratory detection limit of 10.0 ppm. A summary of the chemical results for the metals analyzed is presented in Table 5. Laboratory data sheets are presented in Appendix F.

2.4 Building 228 Area

On December 12, 1990, a Bermite employee identified the asphalt area of concern near the former location of Building 228. A grid 30 feet wide and 40 feet long with 10-foot by 10-foot cells (Photographs 7 and 8, Appendix A) was marked off over the area by a Delta geologist (Figure 3). A visual inspection of the area for contamination was conducted. Evidence of contamination at the surface was not noticed. In accordance with the work plan, each cell was screened for VOCs with an OVA. To accomplish this, a manually operated auto hammer with 1/2-inch-diameter bits was used to drill a hole 1.5 feet below the ground surface at each cell location. The hole was covered with plastic for a minimum of 15 minutes before inserting the tip of the OVA through the plastic to record a reading. Field screening results are summarized in Table 6. Figure 5 shows the grid with the identification of each vapor point. All of the cells screened registered a zero on the OVA except Cell 10 which registered 6.0 ppm.

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Verification of the OVA reading at Cell 10 was conducted on March 12, 1991, by a Bermite employee. Four

additional vapor points (10 A-D) were drilled with a manually operated power auger to depths of 3 feet

below the ground surface around the initial vapor point drilled on December 31, 1990, at Cell 10. The holes

were covered with plastic for a minimum of 15 minutes before inserting the tip of the OVA through the

plastic to record a reading. Field screening results are summarized in Table 6. Vapor points (10 A-D) are

shown in Figure 5. The OVA screening on these additional vapor points registered a zero.

On December 13, 1990, a Delta geologist supervised the drilling and sampling of four soil borings at this

location. One soil boring (B-4) was drilled at Cell 10 as a result of an OVA reading of 6.0. A soil sample

was collected at 3 feet below the ground surface for chemical analysis. Soil sampling procedures are

presented in Appendix B.

A random numbers generation table was used to select three cells for soil sampling. Cells 2, 5, and 9 were

selected and soil borings B-1, B-2, and B-3 were drilled at these locations, respectively. Soil samples were

collected at 5 and 10 feet below the ground surface for chemical analysis.

All seven soil samples were submitted to FGL for chemical analysis of purgeable organic compounds by EPA

Method 8240, semivolatile priority pollutants by EPA Method 8270, and total concentrations for the CAM

metals.

Classification of the soil samples collected from these soil borings indicated the soils underlying this area

to a depth of 10 feet were comprised of brown, fine-grained, dry, silty sands. Soil boring logs are presented

in Appendix C.

The results of the chemical analysis for purgeable organic compounds by EPA Method 8240 and semivolatile

priority pollutants by EPA Method 8270 indicated that all constituents analyzed were below the detection

limits set in SW-846. Chemical results of the soil sample collected from soil boring B-1 at a depth of 5 feet

from Cell 2 indicated the presence of bis (2-ethylhexyl) phthalate, which is a plasticizer, at a concentration

of 1.3 ppm. The laboratory detection limit was 1.0 ppm. Laboratory data sheets are presented in

Appendix G.

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The results of the chemical analysis for the CAM metals indicated that all the constituents analyzed were

below the laboratory detection limits except for the following metals: barium, copper, lead, nickel, and

vanadium. Barium was detected in soil boring B-2 at a depth of 10 feet at a concentration of 75.0 ppm. The

laboratory detection limit for barium was 50.0 ppm. Copper was detected in the soils at soil borings B-1 and

B-2 at depths of 5 and 10 feet at concentrations ranging from 12.0 to 16.0 ppm. The laboratory detection limit for copper was 10.0 ppm. Nickel was detected in the soils at all of the soil borings at depths of 5 and

10 feet at concentrations ranging from 11.0 to 20.0 ppm. There was one exception, the results of the

chemical analysis of the soil sample collected from soil boring B-3 at 10 feet indicated that concentrations

of nickel were below the laboratory detection limit of 10.0 ppm. Vanadium was detected in the soils at all

of the soil borings at depths of 5 and 10 feet at concentrations ranging from 11.0 to 28.0 ppm. The

laboratory detection limit for vanadium was 10.0 ppm.

A summary of the chemical results for the metals analyzed is presented in Table 7. Laboratory data sheets

are presented in Appendix G.

2.5 Background

On November 20, 1987, four soil borings were drilled under the supervision of a Wenck & Associates

geologist at the background location (Figure 6). Six soil samples were collected from depths of 0 to 0.5, 0.5

to 1.0, 1.0 to 2.0, 2.0 to 3.0, 3.0 to 4.0, and 4.0 to 5.0 feet from each soil boring for chemical analysis of

metals. A summary of the chemical results for the metals analyzed is presented in Appendix H. Figure 6

shows the sampling grid and identifies the soil boring locations.

3.0 SUMMARY AND DISCUSSION

On December 12 and 13, 1990, a Delta geologist collected several soil samples for chemical analysis at the

following areas: old lead azide building sump and drainage area; Building 110 sump, drainage area, pond

342, and background area; ravine below the phosphorous stabilizing area; and Building 228 area.

3.1 Old Lead Azide Building Sump and Drainage Area

Due to the inherent variability of metals concentrations in the soils, the mean concentration for lead was

calculated for the soils in the background area (Table 8) for comparison to the results obtained from these

specific soil samples (Table 1). In order to account for the variability of metals in soils, the standard

deviation for lead was calculated for the background soil samples (Table 8). The total lead concentrations

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for the soil samples collected at the former sump at depths of 5 and 10 feet and in the drainage area at a

depth of 10 feet were within or slightly above one standard deviation of the mean calculated from the

background area indicating lead concentrations are within background levels. The soil sample from soil

boring B-6 at a depth of 5.0 feet indicated the presence of lead at a concentration of 79.0 ppm. This

concentration is several times greater than background levels identified on site but is within the range of lead

levels found in the soil throughout California and the United States (U.S. Geological Survey Professional

Paper 957, Lead in the Environment).

3.2 Building 110 Sump, Drainage Area, Pond 342 Area, and Background Area

Concentrations of chloride in the soil samples collected from the Building 110 sump and drainage area were

3.5 and 5.0 ppm, respectively, which were similar to the concentrations of chloride detected in the

background soil sample.

The results of the chemical analysis for chloride from the soil sample collected from the 342 pond area

(B-11) at a depth of 15 feet below the ground surface indicated a concentration of chloride of 20.0 ppm.

Chloride does not pose a threat to the environment or to human health at these concentrations.

3.3 Ravine Below the Phosphorous Stabilizing Area

Several inorganic constituents (barium, copper, lead, nickel, and vanadium) were detected in the soils at

concentrations above the detection limits of the laboratory. Due to the inherent variability of soils and their

metals concentrations, the mean concentration for each constituent was calculated for the soils collected at

the ravine and background areas (Tables 5 and 8, respectively).

In order to account for the variability of metals in soils, the standard deviation for each constituent was

calculated for the background soil samples (Table 8). The calculated means for concentrations of barium,

copper, lead, and nickel in the soils from the ravine area are within one standard deviation of the means

calculated from the background area soil samples, indicating the metals detected are within background

levels.

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Vanadium was not used on the site; however, the analysis for CAM metals included vanadium. The concentrations detected were similar to the concentrations detected near Building 228, which is located 5,500 feet northwest of the ravine. It is Delta's opinion that the concentrations detected are representative

of the natural background soil conditions and pose no threat to the environment or human health.

3.4 Building 228 Area

Several inorganic constituents (barium, copper, lead, nickel, and vanadium) were detected in the soils at

concentrations above the detection limits of the laboratory. Due to the inherent variability of soils and their

metals concentrations, the mean concentration for each constituent was calculated for the soils obtained

across the 228 and background areas (Tables 7 and 8, respectively). In order to account for the variability

of metals in soils, the standard deviation for each constituent was calculated for the background soil samples

(Table 8). The calculated means for concentrations of barium and copper in the soils from the 228 area are

within one standard deviation of the means calculated from the background area indicating these metals are

within background levels.

The calculated means for concentrations of lead and nickel were slightly above one standard deviation of

the means calculated from the background area; however, the comparison of the range of concentrations

detected in the soils at the 228 area are within the range of concentrations detected in the soil in the

background area indicating the metals detected are within background levels.

Vanadium was not used on the site; however, the analysis for CAM metals included vanadium. The

concentrations detected in the soils were similar to the concentrations detected in the soils from the ravine

areas which are located 5,500 feet southeast of the 228 area. It is Delta's opinion that the concentrations

detected are representative of the natural background soil conditions and pose no threat to the environment

or human health.

The detection of bis (2-ethylhexyl) phthalate (a plasticizer) at a concentration of 1.3 ppm, is probably due

to cross-contamination in the laboratory. A plasticizer is usually used in the manufacturing of plastics to

make plastic soft and flexible. EPA considers plasticizers to be a common laboratory contaminant.

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4.0 REMARKS/SIGNATURES

The recommendations contained in this report represent our professional opinions, and are based in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

DELTA ENVIRONMENTAL CONSULTANTS, INC.

This report was prepared by:

Michael J. O'Brien

Barbara J. Mickelson District Manager

Hydrogeologist/Project Manager

This report was reviewed by:

The work performed in this report was done under the supervision of a California Registered Geologist:

Date_

No. C043417

Exp. 6/30/92

ENGINEER

Date 3-22-9/

Date 3-22-9

Brian L. Krogsøng, R. California Registered Geologist #2303

Results of the Chemical Analysis for Total Lead for Soil Samples
Collected at the Former Old Lead Azide Building Sump and Drainage Area
Concentrations in milligrams per kilogram (mg/kg)

Soil Boring	Description	Date Collected	Depth (ft)	Total Lead
B-5-1	Former Sump	12/13/90	5.5	7.0
B-5-2	Former Sump	12/13/90	10.0	5.0
B-6-1	Drainage	12/13/90	5.5	79.0
B-6-2	Drainage	12/13/90	10.0	6.0

Results of the Chemical Analysis for Chloride for Soil Samples Collected at the Former Building 110 Sump, Drainage Area, and the Former 342 Pond Area Concentrations in milligrams per kilogram (mg/kg)

Soil Boring	Description	Date <u>Collected</u>	Depth (ft)	Chloride
B-11-1	Former 342 Pond Area	12/13/90	15	20.0
B-12-1	Former Building 110 Sump	12/13/90	10	3.5
B-13-1	Drainage Area	12/13/90	10	5.0

TABLE 3

Results of the Chemical Analysis for Chloride for a Soil Sample
Collected at a Background Location
Concentrations in milligrams per kilogram (mg/kg)

Sample Description	Date <u>Collected</u>	Depth (ft)	Chloride
Background	12/13/90	0 to 0.5	3.0

TABLE 4

Field Screening Results of the Area Above the Phosphorous Stabilizing Area With an Organic Vapor Analyzer Concentrations in parts per million (ppm)

Cell <u>Number</u>	Reading	Cell Number	Reading	Cell <u>Number</u>	Reading
1	0	21	0	41	0
2	0	22	0	42	0
3	0	23	0	43	0
4	0	24	0	44	0
5	0	25	0	45	0
6	0	26	0	46	0
7	0	27	0	47	0
8	0	28	0	48	0
9	0	29	0	49	0
10	0	30	0	50	0
11	0	31	0		
12	0	32	0		
13	0	33	0		
14	0	34 😴	0		
15	0	35	0		
16	0	36	0		
17	1	37	0		
18	0	38	0		
19	0	39	0		
20	0	40	0		

TABLE 5 A Summary of the Results of the Chemical Analyses for California Assessment Manual Metals for Soil Samples Collected on December 13, 1990, From an Area in the Ravine Below the Phosphorous Stabilizing Area Concentrations in milligrams per kilogram (mg/kg)

	Soil Sample Locations								
Constituent <u>Analyzed</u>	B-7-1 #5-5 ^a	B-7-2 #5-10	B-8-1 #17-3	B-9-1 #22-5	B-9-2 #22-10	B-10-1 #46-5	B-10-2 #46-10	<u>Mean</u> b	Range ^c
Antimony	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	10.0	10.0
Arsenic	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.0	3.0
Barium	<50.0	< 50.0	<50.0	<50.0	< 50.0	< 50.0	68.0	52.6	50-68
Beryllium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	0.5
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	0.5
Chromium (total)	<50.0	<50.0	<50.0	< 50.0	<50.0	<50.0	< 50.0	50.0	50.0
Cobalt	<50.0	<50.0	< 50.0	<50.0	<50.0	<50.0	< 50.0	50.0	50.0
Copper	<10.0	<10.0	<10.0	12.0	<10.0	<10.0	10.0	10.3	10-12
Lead	4.0	<4.0	5.0	5.0	5.0	5.0	6.0	4.9	4-6
Мегсигу	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.1
Molybdenum	<100.0	<100.0	<100.0	<100.0	<100.0	<100.0	<100.0	100.0	100.0
Nickel	<10.0	< 10.0	10.0	10.0	10.0	13.0	18.0	11.35	10-18
Selenium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	0.5
Silver	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	< 3.0	3.0	3.0
Thallium	<5.0	< 5.0	<5.0	<5.0	<5. 0	< 5.0	< 5.0	5.0	5.0
Vanadium	13.0	<10.0	19.0	15.0	15.0	19.0	22.0	16.1	10-22
Zinc	<100.0	<100.0	<100.0	<100.0	<100.0	<100.0	<100.0	100.0	100.0

^aGrid number and sample depth in feet.

^bThe mean for constituents with concentrations less than detection were calculated assuming the concentration was at the detection limit.

^cThe range for constituents less than detection was given as the detection limit.

TABLE 6

Field Screening Results for the Area Near Building 228 With the Organic Vapor Analyzer
Concentrations in parts per million

Cell Number	Reading
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	6
Α	0
В	0
С	0
D	0
11	0
12	0

TABLE 7 A Summary of the Results of the Chemical Analyses for California Assessment Metals for Soil Samples Collected on December 13, 1990, From the Area Near Building 228 Concentrations in milligrams per kilogram (mg/kg)

		Soil Sample Locations							
Constituent Analyzed	B-1-1 #2-5 ^a	B-1-2 #2-10	B-2-1 #5-5	B-2-2 #5-10	B-3-1 #9-5	B-3-2 #9-10	B-4-1 #10-3	<u>Mean^b</u>	Range ^c
Antimony	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	10.0	10.0
Arsenic	<3.0	<3.0	<3.0	< 3.0	<3.0	<3.0	<3.0	3.0	3.0
Barium	<50.0	< 50.0	<50.0	75.0	<50.0	<50.0	< 50.0	53.6	50-75
Beryllium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	0.5
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	0.5
Chromium (total)	<50.0	< 50.0	< 50.0	<50.0	< 50.0	<50.0	<50.0	50.0	50.0
Cobalt	< 50.0	< 50.0	< 50.0	<50.0	<50.0	<50.0	< 50.0	50.0	50.0
Copper	16.0	12.0	16.0	14.0	<10.0	<10.0	<10.0	12.6	10-16
Lead	8.0	6.0	6.0	8.0	5.0	4.0	5.0	6.0	4-8
Mercury	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.1
Molybdenum	<100.0	<100.0	<100.0	<100.0	<100.0	<100.0	<100.0	100.0	100.0
Nickel	18.0	14.0	14.0	20.0	12.0	<10.0	11.0	14.1	10-20
Selenium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	0.5
Silver	< 3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.0	3.0
Thallium	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.5	5.0	5.0
Vanadium	19.0	19.0	17.0	28.0	14.0	11.0	13.0	17.30	11-28
Zinc	<100.0	<100.0	<100.0	<100.0	<100.0	<100.0	<100.0	100.0	100

^aGrid number and sample depth in feet.

^bThe mean for constituents with concentrations less than detection were calculated assuming the concentration was at the detection limit.

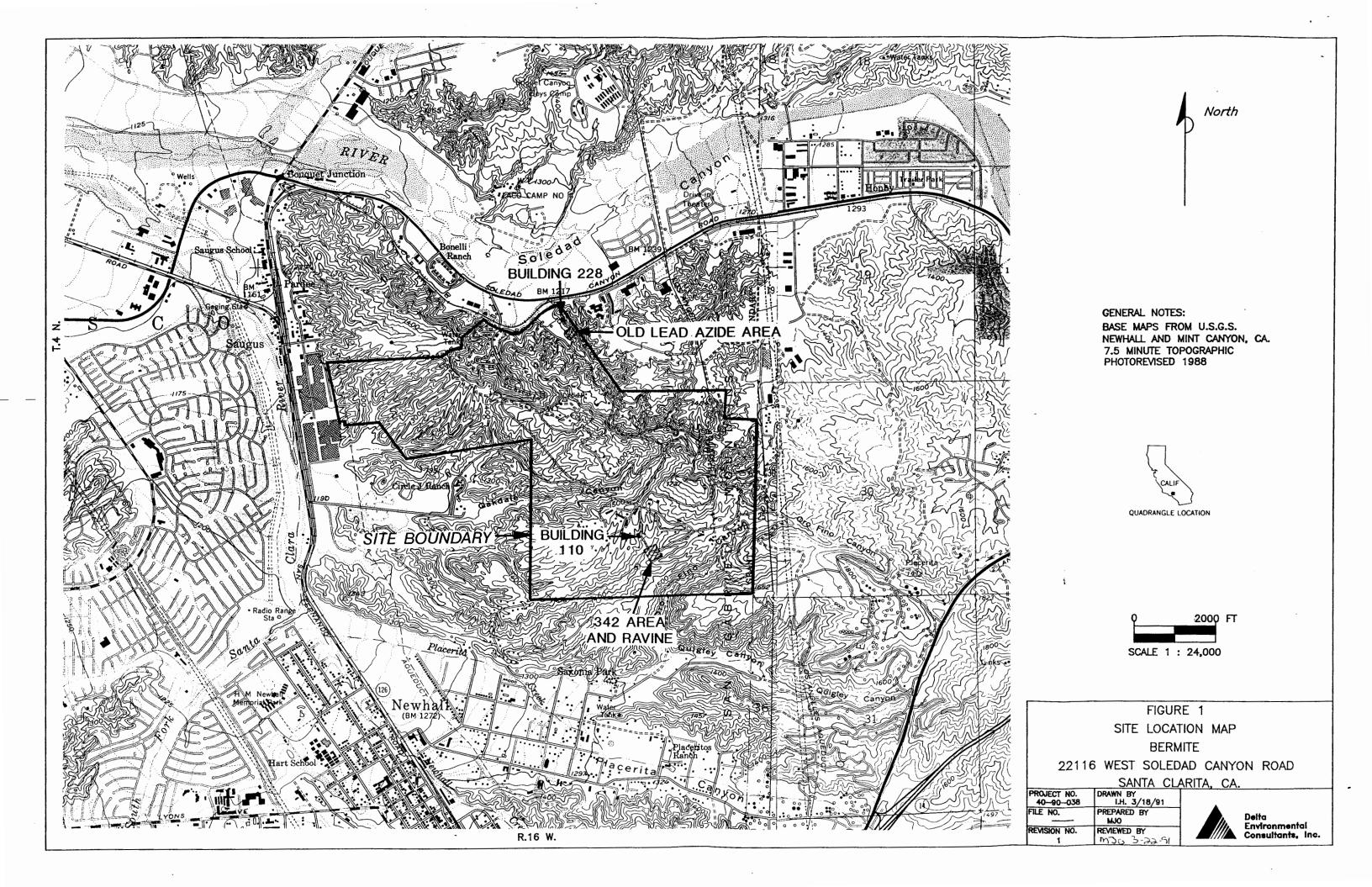
^cThe range for constituents less than detection was given as the detection limit.

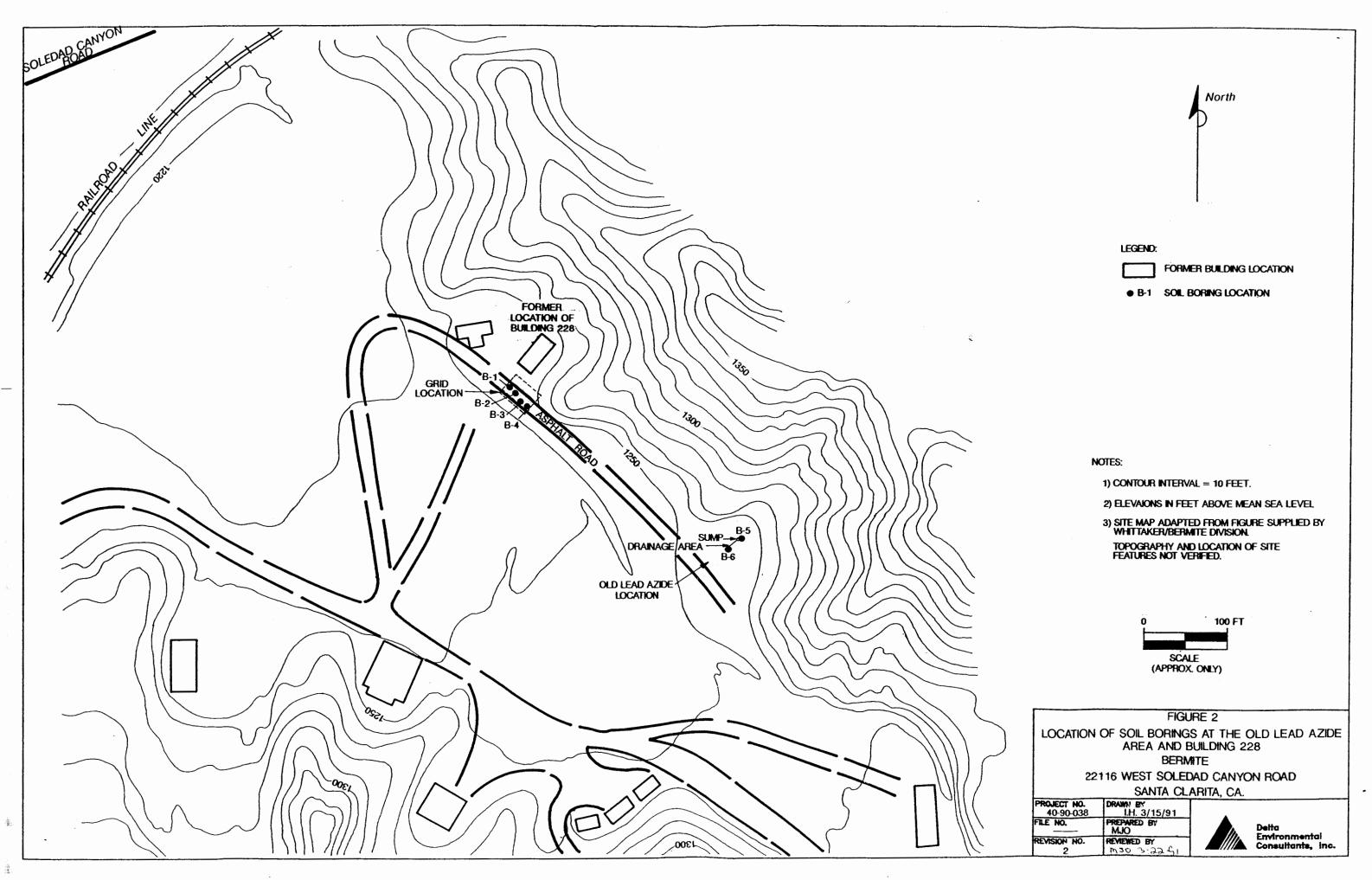
TABLE 8

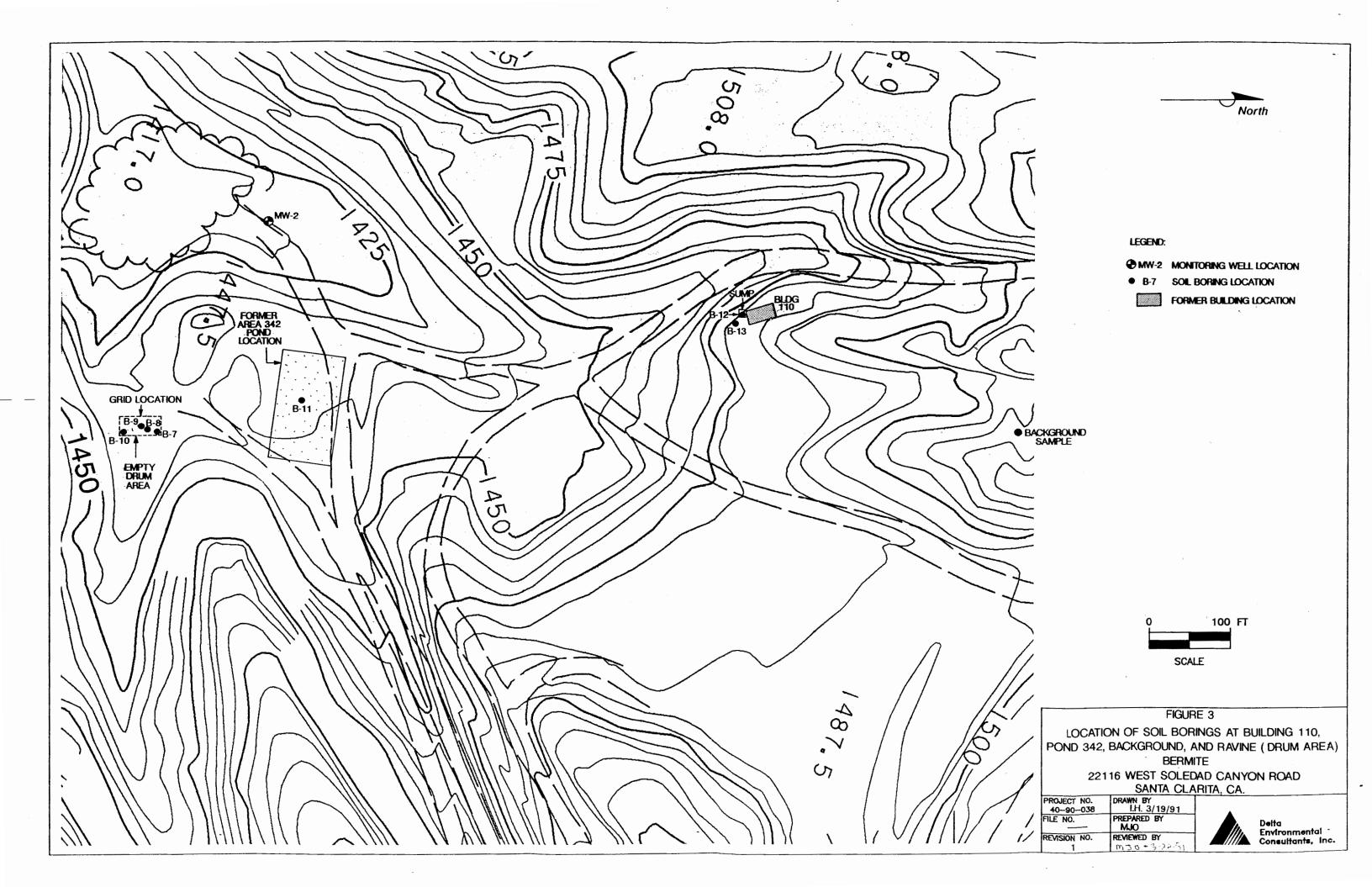
Mean, Standard Deviation and Range for Background Area Metal Concentrations

		Standard	
Constituent	<u>Mean</u>	<u>Deviation</u>	Range
Antimony	10.0	0	10.0
Arsenic	4.6	0.9	3.0-6.0
Barium	52.1	5.9	50-76
Beryllium	0.5	0	0.5
Cadmium	0.5	0	0.5
Chromium (total)	50.0	0	50.0
Cobalt	a		
Copper	10.7	2.7	10-23
Lead	3.7	1.8	3-12
Mercury	0.1	0	0.1
Molybdenum			
Nickel	10.4	2.0	10-20
Selenium	.5	0	0.5
Silver	3.0	0	3.0
Thallium	5.0	0	5.0
Vanadium			
Zinc			

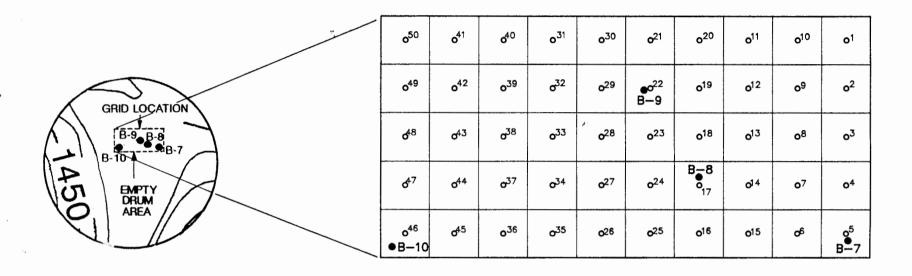
^aConstituent not analyzed.

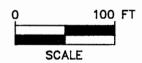


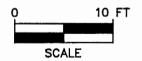












LEGEND:

- B-9 SOIL BORING LOCATION
- 3 VAPOR PROBE LOCATION

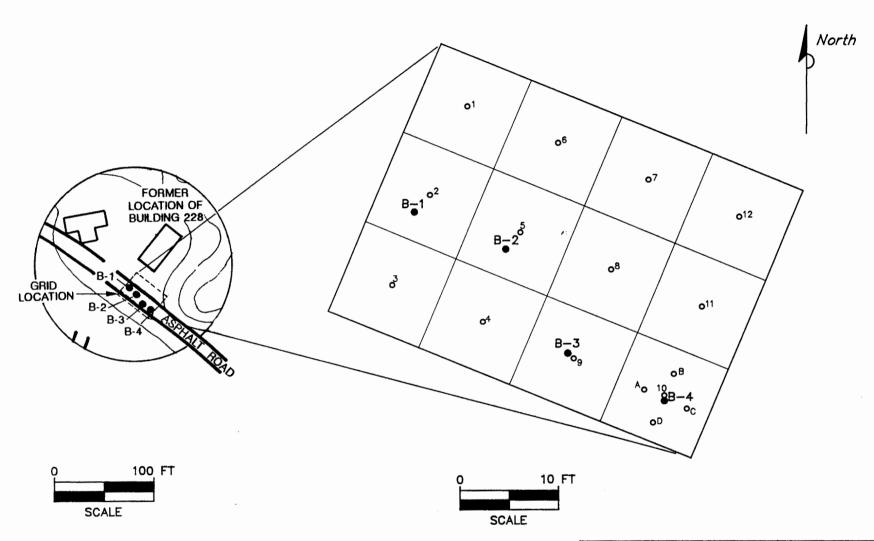
FIGURE 4

CELL LOCATIONS AT THE RAVINE BELOW THE PHOSPHROUS STABILIZING AREA BERMITE

22116 WEST SOLEDAD CANYON ROAD SANTA CLARITA, CA.

PROJECT NO.	DRAWN BY
40-90-038	I.H. 3/19/91
FILE NO.	PREPARED BY
90-038-7	HEH
REVISION NO.	REVIEWED BY





LEGEND:

- B−1 SOIL BORING LOCATION
- o 3 VAPOR PROBE LOCATION

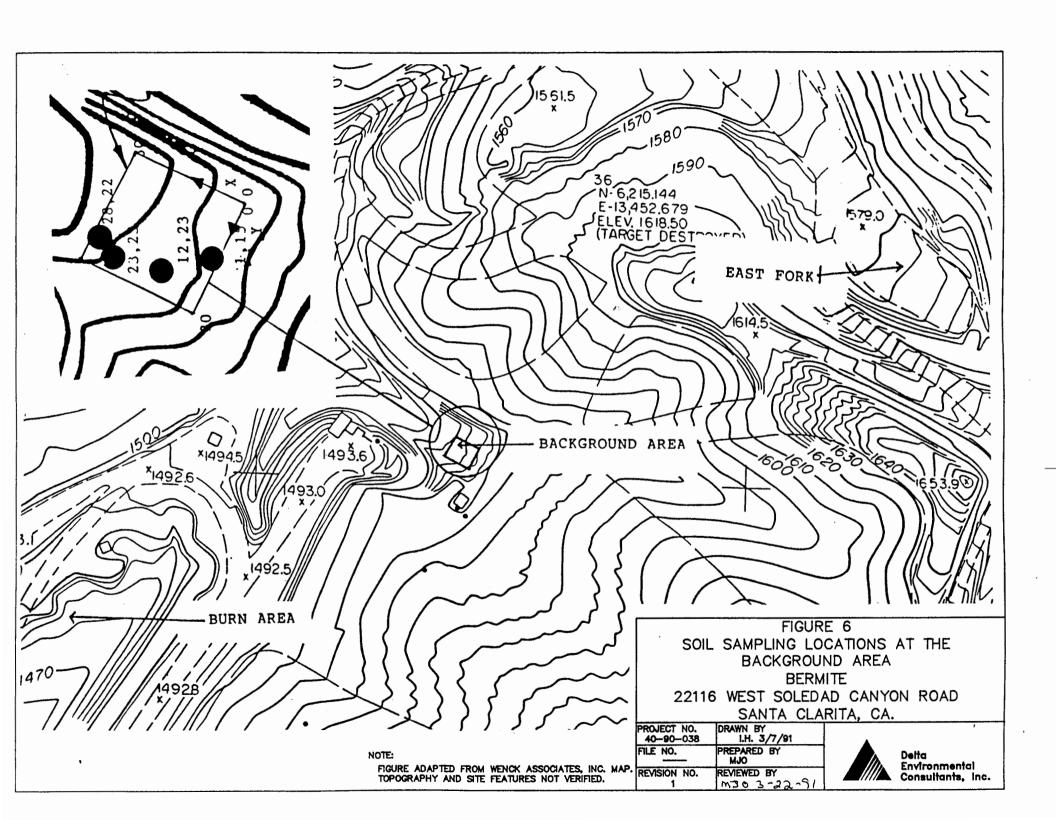
FIGURE 5

CELL LOCATIONS AT THE FORMER BUILDING 228 AREA BERMITE

22116 WEST SOLEDAD CANYON ROAD SANTA CLARITA, CA.

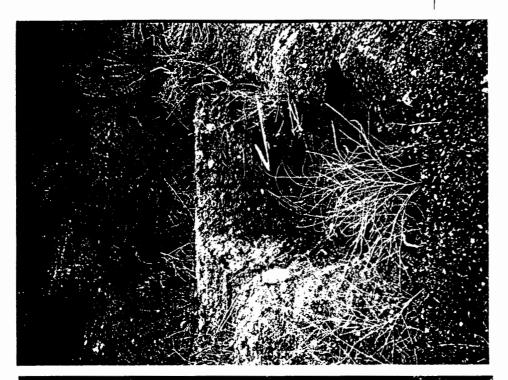
PROJECT NO. 40-90-038	DRAWN BY I.H. 3/19/91	
FILE NO. 90-038-7	PREPARED BY HEH	
REVISION NO.	MEVIEWED BY	





APPENDIX A

Site Reconnaissance Photographs



1Former sump location at the former old lead azide building area.



View toward the southwest showing the locations of soil borings SB-5 and SB-6.



3-View toward the southeast showing the former Building 110 area and soil boring locations.



View toward the northeast showing the area of the former surface impoundment at the 342 area and soil boring location.



View toward the west showing the location of the grid over the area where the empty 55-gallon drums were found.



View toward the west showing the location of the grid over the area where the empty 55-gallon drums were found.



7-View toward the northwest showing the location of the grid over the paint spill area.



8-View toward the southeast showing the location of the grid and soil borings.

APPENDIX B

Soil Sampling Procedures

1.0 METHODS

1.1 Soil Sampling and Contamination Reduction

Soil borings and soil sampling were performed under the direction of a Delta engineer or geologist. The soil borings were advanced using a truck-mounted hollow-stem auger drill rig.

To reduce the chances of cross-contamination between boreholes, all downhole drilling equipment was steam-cleaned between each boring. To reduce cross-contamination between samples, the split-barrel sampler was washed in a soap solution and double-rinsed between each sampling event.

Soil sampling was done in accordance with ASTM 1586-84. Using this procedure, a 2-inch outside-diameter split-barrel sampler or a 2-inch inside-diameter California-type sampler was driven into the soil by a 140-pound weight falling 30 inches. After an initial set of 6 inches, the number of blows required to drive the sampler an additional 12 inches is known as penetration resistance, or the "N" value. The N value is used as an empirical measure of the relative density of cohesionless soils and the consistency of cohesive soils.

Upon recovery, a portion of the soil sample was placed into a glass jar and sealed for later screening with the organic vapor analyzer (OVA). Another portion of the soil sample was used for classification and description. That part of the soil sample collected in brass tubes within the California-type sampler was stored at approximately 4°C for transport to the laboratory.

1.2 Soil Classification

As the samples were obtained in the field, they were classified by the crew chief/geologist in accordance with the Unified Soil Classification System. Representative portions of the samples were then retained for further examination and for verification of the field classification. Logs of the borings indicating the depth and identification of the various strata, the N value, and pertinent information regarding the method of maintaining and advancing the borehole were made.

1.3 Soil Sample Screening/hNu PID Method

After soil sample jars were brought to ambient temperature, the headspace vapors of the soil sample jars were screened with a OVA calibrated to methane. The sample jar lid was opened and the detector probe immediately placed within the headspace of the jar. The highest observed reading was recorded.

APPENDIX C

Soil Boring Logs

PR	OJEC	r nam	E / LO	CATION		PROJECT NUMBER: 40-90-038	BORING NUMBER: B	SHEET	1 OF 1
B B P	ermi uild aint	te ing 2 Stor	28, Gr age Ar	id #2 ea	on Road	CONTRACTOR: Beylik		DRILLING	H.S.A.
S	2116 anta	Clar	ita, C	ad Cany A	yon Road	DRILLER: Cezar Diez		DRILLING RIG:	B - 61
1						START: 7:20/12-13	3-90	COMPLETED:	7 :50/12-13- 90
IA	ND NER:	Whit	taker	Corpora	ation	SURFACE ELEVATION:		LOGGED BY: Hal Hansen	1
STAY	SNAU	B C	S I A N M T	SR AE MC	DEPIH	DESCRIPTIONS OF M	ATTEDTAT C	CONTAMINANI OBSERVATION	
S T M P P L E	PE	BLOWNTS	P L	PO LV E(in)	SCALE 1"= 4'	AND CONDITION		INSTRUMENT: OVM UNITS: ppm	NOTES
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					4 —				
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ı CA	B-1	8/	10.0-	18"	10			0	No odor
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1			E / LO	CATION		PROJECT NUMBER: 40-90-03	BORING 8 NUMBER: B	SHEET	1 OF 1
B B	ermi uild aint	te ing 2 Stor	28, Gr age Ar	id #5	yon Road	CONTRACTOR: Beylik	· · · · · · · · · · · · · · · · · · ·	DRILLING METHOD:	H.S.A.
S	anta	west Clar	ita, C	ad Cang A	yon Road	DRILLER: Cezar Diez		DRILLING RIG:	B - 61
1					•	START: 7:55/12-1	3 – 90	COMPLETED:	8:20/ 12-1 3-90
IA OW	ND NER:	Whit	taker	Corpora	ation	SURFACE ELEVATION:		LOGGED BY: Hal Hansen	
STAY	SNAU	B C C I	S I A N M T	SR AE MC	DEPTH	DESCRIPTIONS OF M	Δ ΨΈΡΤΔΤ S	CONTAMINANT OBSERVATION	GENERAL OBSERVATION
S TY M P P L E	PEER	CODXHS	P L E(ft)	PO LV	SCALE 1"= 4'	AND CONDITIO	NS	INSTRUMENT: OVM UNITS: ppm	NOTES
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1					2 —		•		
ı					3 🕂				
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CA.	B-2 1	27/ 50	5.0- 6.5	6"	5 —	SILTY SAND; brown dry, some gravel	, fine sand- (SM)	0	No odor
		for 3"			6 —	, J 32		-	
					7 —				
					8 +				
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CA	B-2 2	85 for 6"	10.0- 11.5	10"	10		-	0	No odor
•		U			12	Total Depth 11.5			
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TI	ME an								•
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CA: DE	SING PIH				Hal Hans		-		

Bermite Building 228, Grid #9 Paint Storage Area 22116 West Soledad Canyon Road Santa Clarita, CA CONTRACTOR: Beylik DRILLING METHOD: H.S.A. DRILLING RIG: B-61 START: 8:30/12-13-90 COMPLETED: 8:50/12	
START: 8:30/12-13-90 COMPLETED: 8:50/12	
	2-13-90
IAND OWNER: Whittaker Corporation SURFACE ELEVATION: IOGGED BY: Hal Hansen	
STSNBCSI SR AYAULO AN AE MPMMOUMT MC DEPIH DESCRIPTIONS OF MATERIALS PEPBWNPPO LLETLLV SCALE E ER S E(ft) E(in) 1"= 4' CONTAMINANT OBSERVATION OBSERVATION OBSERVATION OBSERVATION OBSERVATION OBSERVATION ON NOT	ERAL
STSNBCSISR AYAULOANAE MPMMOUMT MC DEPIH PEPBWNPPO LLETLLV SCALE EERSE(ft) E(in) 1"= 4" CONTAMINANT OBSERVATION GENE AND CONDITIONS INSTRUMENT: NOT	MOITAV
PEPBWN P PO AND CONDITIONS INSTRUMENT: NOT L LE T L LV SCALE OVM UNITS: ppm	
, 3 	
CA B-3 8/ 5.0- 18" 5 — SILTY SAND; brown, fine sand 0 No odd	or
- 7	
'	
CA B-3 65 10.0- 6" 10 Color change to light gray 0 No odd	or
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
12 Total Depth 11.5 feet	
'	
23 —	
WATER LEVEL DATA GEOLOGIST	
DATE	
TIME SIGNATURE	•
GWL Hal Hansen	
CASING DEPTH TYPED NAME	

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1			E / IO	CATION	7.0	PROJECT NUMBER: 40-90-03	BORING 8 NUMBER: B	SHEET	1 OF 1
Be Be	ermi uild aint	te ing 2: Stor	28, Gr	id #10 ea	on Road	CONTRACTOR: Beylik		DRILLING METHOD:	H.S.A.
l S	anta	Clar	ita, C	ad Cany A	on Road	DRILLER: Cezar Diez		DRILLING RIG:	B-61
1						START: 9:00/12-1	3 -9 0	COMPLETED:	9:10/12-13-90
IAI	ND NER:	Whit	taker	Corpora	ation	SURFACE ELEVATION:		LOGGED BY: Hal Hansen	
S T A Y M P P E	S N A U	B C L O	SI AN MT P	S R A E M C	D-10-14	DESCRIPTIONS OF M	AMERICA	CONTAMINANT OBSERVATION	GENERAL
SAMPLE	MMBE	MHOM WHE		P O	DEPIH SCALE	DESCRIPTIONS OF M AND CONDITIO	NS NS	INSTRUMENT:	OBSERVATION NOTES
E	ER	S	E(ft)	Ē(in)	1"= 4'			UNITS: ppm	
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, CA	B - 4	8/	3.0-	14"	3 +	SILTY SAND; brown	, fine sand		No odor
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DA									•
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1			E / LO	CATION		PROJECT NUMBER: 40-90-038	BORING NUMBER: B		SHEET	1	OF	1
B 0	ermi ld L 2116	te ead A West	zide B Soled	uilding ad Can	g Sump yon Road	CONTRACTOR: Beylik	1	DRILLIN METHOD:	√G I	H.S.A.		
S	anta	Clar	ıta, C	A		DRILLER: Cezar Diez		DRILLIN RIG:		B -61		
1						START: 9:30/12-13	- 90	COMPLE	ED:	9:55/1	L 2-1 3	90
3	NER:		taker	Corpora	ation	SURFACE ELEVATION:		IOGGED BY: Hal Hansen				
STAY	SNAU	BLOUNTS	S I A N M T	S R A E M C				CONTAM OBSERVA	INANT ATTON	GEN	VERAI	
SAY MPE LE	M M P B	OUWN	МТ Р	M C P O	DEPIH	DESCRIPTIONS OF MA AND CONDITION	TERIALS S	INSTRU		OBSET	RVATI DIES	ON
LE	LER	TS	P L E(ft)	PO LV E(in)	SCALE 1"= 4'			UNITS:	MVO			
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					4 —							
CA	B-5	8/	5.0-	18"	5	STITY SAND: gravis	h-brown	0		No o	dor	
	B-5 1	8/ 11/ 17	5.0 - 6.5		6-	SILITY SAND; grayis fine sand, dry, so (SM)	me gravel]				
ı		-'			7 +	(22.)		1				
ı					8 —		•					
CA	B - 5	9/	9.0-	18"	9 —		_	,		No o	dor	
	B-5 2	9/ 15/ 19	10.5		10 +			1				
					11	Total Depth 10.5 f	eet –	1				
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ı					19 🕂			1				
i					20 —			-				
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1					22 —			1				
					23 —]				
	L	TER T	EVEL D	ATA	GEOLOGI	ST		1				
	TE			<u> </u>								
TI												-
GW			+	-	- SIGNATUR							
CA	SING			-	Hal Hans							
DE	PIH				TYPED NA	ME						

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1			E / LO	CATION		PROJECT NUMBER: 40-90-0	BORING NUMBER: B	SHEET	' 1 OF 1
02	ermi ld L 2116 anta	ead A West	zide B Soled	uidling ad Cany	g Drain Area yon Road	CONTRACTOR: Beylik	1	DRILLING METHOD: H	.s.a.
3	uila	cuar	ia, C	a		DRILLER: Cezar Diez		DRILLING RIG: B	⊢ 61
						START: 10:10/12	-13-90	COMPLETED: 1	0:40/12-13-90
1	NER:			Corpora	ation	SURFACE ELEVATION:		LOGGED BY: Hal Hansen	
STAY	S N A U M M	B C L O	S I A N M T P	SR AE MC	DEPTH	DESCRIPTIONS OF	MATERIAIS	CONTAMINANT OBSERVATION	GENERAL OBSERVATION
S T M P P E L E	PER	BLOWTS	P L E(ft)	PO LV E(in)	SCALE 1"= 4'	AND CONDITI	ONS	INSTRUMENT: OVM UNITS: ppm	NOTES
	1.1		II(IC)	15(111)			-	ONIIS. PPM	
					2 —				
•					3 —				
	_				4				
CA 	B - 6	10/ 11/ 22	5.0 - 6.5	18"	5 6 	SILTY SAND; gra fine sand, dry, (SM)	yish-brown, — some gravel	0	No odor
					7	(44)	-		
					8 🕂		<u> </u>		
CA	B-6 2	12/ 18/ 27	9.0- 10.5	18"	9 —		<u>-</u>	0	No odor
		27			10	Total Depth 10.	 5 feet _		
					12	Town Dopus IV.			
					13 🕂		<u>.</u>		
					14 —				
					15 —		•		
					16 ——		<u></u> -		
					18 —			i	
					19 🕂		· 		
					20 —				
					21 —				
	:				23 —		-		
	WA	rer ti	EVEL D	АТА	GEOLOGIS	<u>ग</u>	-		
DA'		`		1	GLOIDGIG				
TI	ME				SIGNATURE	•			•
GW.					Hal Hanse				
CA: DE	SING PIH				TYPED NAM				

PR	OJEC	r nam	E / LO	CATION		PROJECT NUMBER: 40-90-03	BORING 8 NUMBER: B		EET 1 OF 1	
ı G	rid	horus #5		lizing		CONTRACTOR: Beylik		DRILLING METHOD:	H.S.A.	
l 2 S	2116 anta	West	Soled ita, C	ad Cany A	yon Road	DRILLER: Cezar Diez		DRILLING RIG:	B-61	
1						START: 11:35/12-	13-90	COMPLETE	D:11:50/12-13-90	
IA	ND NER:	Whit	taker	Corpora	ation	SURFACE ELEVATION:		LOGGED BY: Hal Hansen		
STAY	S N A U	B C L O	S I A N M T	S R A E M C				CONTAMINANT OBSERVATION GENERAL		
S T M P P E L E	M M P E E R	BLOWES	MT P L E(ft)	PO LV	DEPTH SCALE 1"= 4'	DESCRIPTIONS OF M AND CONDITIO		INSTRUMEN ON UNITS: P	VM I	
CA CA	B-7 1	70 for 6"	10.0- 11.5	7" 8"	1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10 — 11 — 12 — 13 — 14 — 15 — 16 — 17 — 18 — 19 — 19 — 19 — 19 — 19 — 19 — 19	SILITY SAND; grayi coarse sand, dry, (SM)	-	0	No odor	
					20					
	WA	TER I	EVEL D	ATA	GEOLOGIS	ST				
DA	TE									
TI	ME				SIGNATUR	E			-	
GW					Hal Hanse	1				
CA DE	CASING Hall TYPE									

PR	OJEC	r nam	E / 10	CATION		PROJECT NUMBER: 40-90-038	BORING NUMBER: B		ET 1 OF 1
, G	riđ:	horus #17		lizing		CONTRACTOR: Beylik		DRILLING METHOD:	H.S.A.
S	2116 anta	Clar	ita, C	ad Cany A	yon Road	DRILLER: Cezar Diez		DRILLING RIG:	B-61
1						START: 12:05/12-1	L3 90	COMPLETED):12:10/12-13-90
LAI	ND NER:	Whit	taker	Corpora	ation	SURFACE ELEVATION:		LOGGED BY Hal Hans	: en
STAY	S N A U	B C L O	SI AN MT	S R A E M C	DDD.	DESCRIPTIONS OF M	ATTENTALO	CONTAMINA OBSERVATI	ON GENERAL
SAMPE LE	EPHR EPHR	BLOW TYS	P L	PO LV E(in)	DEPIH SCALE 1"= 4'	DESCRIPTIONS OF MAND CONDITION		INSTRUMEN OV UNITS: pp	M I
CA	B-8 1		3.0-4.5	18"	1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10 — 11 — 12 — 13 — 14 — 15 — 16 — 17 — 18 — 19 — 20 — 21 — 22 — 23 — 23 — 23 — 23 — 24 — 23 — 24 — 23 — 24 — 25 — 25 — 25 — 25 — 25 — 25 — 25	SILITY SAND; grayis coarse sand, dry, (SM) Total Depth 4.5 fe		0	No odor
	WA'	TER L	EVEL D	ATA	GEOLOGIS	ST		1	1
DA'		Ţ							
TI	ME								
GW.		 			SIGNATUR				
	SING PIH				Hal Hanse				-

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PR	OJEC:	r nam	Е / LO	CATION		PROJECT NUMBER: 40-90-038	BORING NUMBER: B	SHEET	1 OF 1	
ı G	riđ:	horus #22		lizing		CONTRACTOR: Beylik	NOTITE C	DRILLING	.s.a.	
2 S	2116 anta	West Clar	Soled ita, C	ad Cany A	yon Road	DRILLER: Cezar Diez		DRILLING RIG: E	- 61	
1						START: 12:20/12-1	3-90	COMPLETED: 1	2:50/12-13-90	
IA	ND NER:	Whit	taker	Corpora	ation	SURFACE ELEVATION:		LOGGED BY: Hal Hansen		
STAY	S N A U	B C L O	SIAN	S R A E M C				CONTAMINANT OBSERVATION GENERAL		
S TY M P P E L	M M P B L E	BLOUNTS	SI AN MT P L E(ft)	PO LV	DEPTH SCALE 1"= 4'	DESCRIPTIONS OF MARKET AND CONDITION		INSTRUMENT: OVM UNITS: ppm	OBSERVATION NOTES	
	11	3	E(IC)	12(111)	1 +			ONLID: PPAR		
					2					
					3 —		-			
					4 +					
CA	B-9	12/ 14/ 19	5.0- 6.5	18"	5 +	SILTY SAND; grayis coarse sand, dry,	sh-brown, —	0	No odor	
	1	19	6.5		6 —	(SM)	Some graver			
					7 —		_			
					8 —					
					9 🕂					
CA	B-9 2	12/ 16/ 19	10.0- 11.5	18"	10 —			0	No odor	
•		19			11	matal parth 11 5 4				
					12 —	Total Depth 11.5 i	teet			
•					14]		
					15					
•					16		<u> </u>			
1					17 —		_			
'					18 —					
					19 🕂		_			
1					20 —					
					21 —				·	
1					22 —					
					23 —					
 	WA'	TER L	EVEL D	ATA	GEOLOGIS	ST			1	
DA	TE									
TI	ME				SIGNATUR	2			•	
GW					Hal Hanse	1				
I CA	SING PIH				TYPED NAM	•				

1			E / LO	CATION	· · · · · · · · · · · · · · · · · · ·	PROJECT NUMBER: 40-90-03	BORING NUMBER: E	3–10	SHEET	1 (OF	1
ı G	rid	horus #46		lizing		CONTRACTOR: Beylik		DRILLI METHOD	NG): I	H.S.A.		
l s	anta	Clar	ita, C	ad Cany A	yon Road	DRILLER: Cezar Diez		DRILLI RIG:		3-61		
						START: 1:00/12-1	.3 –9 0	COMPLE	TED: 1	1:25/1	2-13	90
	NER:		taker	Corpora	ation	SURFACE ELEVATION:		LOGGED Hal H	BY: lansen			
STAY	S N A U M M	B C L O	S I A N M T	S R A E M C	DEPIH	DESCRIPTIONS OF M	IATERTALS	CONTAM OBSERV		GEN OBSER	ERAI	Į OM
P E	PBLER	BLOWES	P L E(ft)	P O L V E(in)	SCALE 1"= 4'	AND CONDITIO	NS	INSTRU UNITS:	MVO	NO	ÏES	
CA	B-10 1 B-10 2	13/ 18/ 24 17/ 10/ 12	5.0- 6.5	18"	1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10 — 11 — 12 — 13 — 14 — 15 — 16 — 17 — 18 — 18 — 18 — 18 — 18 — 18 — 18	SILTY SAND; light coarse sand, dry (SM)	-	0		No od		
					19 — 20 — 21 — 22 — 23 —	-	- - - - - -					
·	WAS	TER L	EVEL D	ATA	GEOLO	SIST						
DA	ΓE											
TI	ME				SIGNATI	TRE:						
GW.					Hal Har							
CA	SING PIH				TYPED 1	-						

			E / LO	CATTON		PROJECT NUMBER: 40-90-03	BORING NUMBER:	B-11	SHEET	1	OF	1
TA.	ermi ond 2 2116	Amea	Soled	ad Cany	yon Road	CONTRACTOR: Beylik		DRILI METHO	ING D: 1	H.S.A.		
3	anca	Clar	ia, c	A		DRILLER: Cezar Diez		DRILI RIG:		B - 61		
						START: 2:50/12-2	13 -9 0	COMPI	EIED:	3:20/1	2-1	3–90
IA	ND NER:	Whit	taker	Corpora	ation	SURFACE ELEVATION:	-	LOGGE Hal	D BY: Hansen			
STAY	S N	B C L O	SIAN	S R A E				CONTA	TNANIM NOITAV	GEN	IERA	L.
M P P E L E	MABE	BLOWES	ANMT PL	M C P O L V	DEPTH	DESCRIPTIONS OF I	MATERIALS ONS	INSTR	UMENT: OVM	OBSET	VAT.	ION
E	ER	S	E(ft)	E(in)	1"= 4'			UNITS	: ppm			
 	B- 11 1	30/ 40/ 45	14.0- 15.5	18"	1	CIAYEY SAND; brosand, slightly robbles (SC) Total Depth 15.				No od	dor	
					23 —							
, <u>D</u> A		IER L	EVEL D	ATA	GEOLOGI	ST						
TI		-										•
GW					SIGNATUR							
1	SIÑG PIH				Hal Hans		-					
DE	ЫH				TYPED NA	ME						

			E / LO	CATION	·····	PROJECT NUMBER: 40-90-038	BORING NUMBER: B	SHEET	1 OF 1	
B B 2	ermi uild 2116	te ing 1 West	10 Thr Soled	ough Fo	ormer Sump yon Road	CONTRACTOR: Beylik		DRILLING	H.S.A.	
۱۶	anca	Clar	ita, t	A		DRILLER: Cezar Diez		DRILLING RIG: B-61		
1						START: 3:30/12-13	-9 0	COMPLETED: 3:50/12-13-90		
. OW			taker	Corpora	ation	SURFACE ELEVATION:	•	LOGGED BY: Hal Hansen		
S T A P P E L E	SAUM PE	BLOUNTS	SI AN T P L	SR AE MC PO LV	DEPIH SCALE	DESCRIPTIONS OF MA AND CONDITION	TERIALS S	CONTAMINANT OBSERVATION INSTRUMENT:		
E	ER	S	E(ft)	E(in)	1"= 4'			UNITS:		
CA	B-121	15/ 20/ 26	10.0- 11.5	18"	1	SILITY SAND; yellow fine sand, dry (SM	- - - - - - - - - -	No reading taken		
-	WA'	TER L	EVEL D	ATA	GEOLOGIS	ST		I	<u> </u>	
DA										
TI	ME				CTCMIXITETO				•	
GW	L				SIGNATURI Hal Hanse					
CA DE	SING PIH				TYPED NAI		•			

PROJECT NAME / LOCATION		PROJECT NUMBER: 40-90-038	BORING NUMBER: B	-13 SHEET	1 OF 1	
Bermite Building 110 Next to Su 22116 West Soledad Canyo Santa Clarita, CA	mp on Road	CONTRACTOR: Beylik		DRILLING	H.S.A.	
Santa Clarita, CA		DRILLER: Cezar Diez		DRILLING RIG: B-61		
		START: 3:55/12-13	- 90	COMPLETED:	4:10/12-13-90	
IAND OWNER: Whittaker Corpora	tion	SURFACE ELEVATION:		LOGGED BY: Hal Hansen		
STSNBC SI SR AYAULO AN AE MPMMOU MT MC PEPBWN P PO L LE T L LV E ER S E(ft) E(in)	DEPIH SCALE 1"= 4'	DESCRIPTIONS OF MA AND CONDITION	TERIAIS S	CONTAMINANT OBSERVATION INSTRUMENT: UNITS:	GENERAL OBSERVATION NOTES	
CA B- 17/ 10.0- 18" 11.5 1 1 1 1 1 1 1 1 1	1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10 — 11 — 12 — 13 — 14 — 15 — 16 — 17 — 18 — 19 — 20 — 21 — 22 — 23 — 23 — 23 — 23 — 23 — 23	SILTY SAND; yellow fine sand, dry (SM		No reading taken		
WATER LEVEL DATA	GEOLOGIS	5T		I		
DATE						
TIME					•	
GWL	SIGNATURI					
CASING DEPIH	Hal Hanse			-		

APPENDIX D

Laboratory Data Sheet for the Soil Samples Collected at the Old Lead Azide Building Sump and Drainage Area

					CHAIN O	r Cu	٥ſ٥	ז לו					Page	ot	3
	Delta Environmen Consultants	ntal					Consul 3330 D Rancho	invironr Itants, in ata Drive Cordov 8-2085	nc. e, Suite /a, CA 9	5670	3-8385			Conversamples sent to Cantala acar : Sentala	Con
PROJ. NO.	PROJECT N PROJECT N	OCATION:	L2116	Wes	anta Clarita A Soleday (anyon Ro Union	ad	CONTAINERS				equested Description		ADDRESS	: tenta F	anne-
SAMPLERS (S	Ignature)	el 24					8	heust		70	estata				
LABORA- TORY SAMPLE ID	SAMPLE ID	DATE	TIME	SAMPLE TYPE	SAMPLE LOCATION		NUMBER	tolol	1978		A			REMARKS	
	B-5-1	12-13-90	935	soil	mert to encurate a	ump	1	λ					on	ici	
	B-5-2		950		nert to encurate de	105	1	\ \x							
1	B-6-1		1015		drain area 5.5	<i>/</i>	/	7							
	B-6-2		1030		draw area (10)		1	×							
	B-7-1		1140		Sanet area sloss	Lore			ギ	X	X				
	B-7-2		11 45		Band area shoops	rous			۲	X	X				
	B-8-1		1210		Barrel area phosphora	beet			X	+	4				
	B-9-1		11-30		Barrel any phopher	5			Х	X	7				
Relinquished	by: (Signature)		Date	Tin		Reil	nquishe	d by: <i>(S</i>	ignatur	*)		Date	Time	Received by: (Signature)
Relifiquished b	y: (Signature)		Date	· Tim	Received for Laboratory by: (Signatur	9)	Date	Tim	• T		und Time	lar		,	
Sealed for ship	oment by: (signa	ture) 9 ₀	1019	Van	why	Date/Time 12-13-91 530 Shipment method: Course									
Sampler Comments: 000 1 1 0						Laboratory Comments:									

White: Return with analytical results to Delta

Yellow: Laboratory Copy

Condition of Samples:

Pink: Delta's Copy



January 4, 1991 15 No.: 34161

Firmite Division of Whittaker 1115 West Soledad Canyon Road Saugus, California 91350

intlemen:

Presented below are the results of the analyses performed on your samples inceived on December 14, 1990. The samples have been described, along with data.

AT. 1

	Chloride
	ppm
f nd Area 15 Feet	20
Twrough Sump 10'	3.5
Through Drain 10'	5.0
(loride Background	3.0

Calculated as ppm chloride in dry soil.

It you have any questions, please call or write.

Very truly yours, FGL ENVIRONMENTAL

Ratardo Sandoval

A ricultural Laboratory Manager

RS:mlh

APPENDIX E

Laboratory Data Sheet for the Soil Samples Collected at the Building 110 Sump, Drainage Area, Former Pond 342 Area, and Background Area

							Chaill Cr. C	,00,1	י עונ					ı aye		
	Delta Environment Consultants	ntal						3330 I Ranch	Environ litents, Data Dri o Cordo 18-2085	Inc. ve, Suit	e 100	9-8385		Laboratory SAMPLES SENT TO: FG/ Law la Raules ADDRESS: Landa Paule		
PROJ. NO.	PROJECT N	OCA	TION: 2	1116	W	*	in clarela Spledad Canyon Load	NERS				equested Descriptio		ADDRESS	: sema race	
SAMPLERS (S	PROJECT M	IANA	GER:	mi	Ned	<u>J .C</u>	breen.	R OF CONTAINERS	0		An metel	* see				
LABORA- TORY SAMPLE ID	SAMPLE ID	D	ATE	TIME	SAMPLE TYPE		SAMPLE LOCATION	NUMBER	978	8270	CAM	Mor			REMARKS	
	8-9-2	12	-13 10	1255	sou	Ŗ	and area bud #22 10 end area bucketo 5.	1	X	*	X			0	nor icl	
	B-10-7			1305		Ra	errel men Oriela 46 5	1	X	X	X			<u> </u>		
	B-10-2			1825			prospiano		*	1	<i>x</i>	-	_	 		
	B-11-1	-		1520			poddanea 15 keel	. 1	 	-	-	\ \			<u> </u>	
	B-12-1	 	1 2	1550	H	مدر	a the sange samp 10	- 	-	-	-	+ +				
	B-12-1 Chloride base gran	2		1615	1	l	brough drain 10' als pand 200 ph	1				*				
r														ŀ		
Relinquished	by: (Signature)			Date	T	lme	Received by: (Signature)	Relinquish	ed by: (Signatu	ire)		Date	Time	Received by: (Signature)	
Relinquished t	oy: (Signature)			Date	Ti	me	Received for Laboratory by: (Signature)	Date	Tir	ne		und Time:	of day			
Sealed for ship	pment by: (signa	ture)		al g		al	7 V	ate/Time					-	ent method:		
Sampler Com	ments: 7						2002	& aboratory (:ommer	ıta:						
on pac	r somp	de	Pa	lloi	ved	26	s filtration and									
			-	love	dece	zne	entration concentrate	ondition of	Sample	a ;						
hy ti	brution	-,	٧	Vhite: Re	eturn v	vith	analytical results to Delta Yell	low: Lab	orator	y Cop	у	Pink: D	elta's Co	ppy		



January 17, 1991 Lab No.: 34161

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Gentlemen:

Presented below are the results of the analyses performed on your samples received on December 14, 1990. The samples have been described, is received, along with data.

DATA

	7420 Lead
Excavated Sump 5.5'	ppm 7
Next to Excavated Sump 10'	5
Orain Area 5.5'	79
rain Area 10'	6
NLR	1.0

If you have any questions, please call or write.

Very truly yours, "GL ENVIRONMENTAL

/ eanine Egner, B.S.

E:m1h

APPENDIX F

Laboratory Data Sheets for the Soil Samples Collected From the Ravine Below the Phosphorous Stabilizing Area

Cl.a.N								J. JU	. JUC. JDY							Page	33	of <u></u>	
	Delta Environmen Consultants	ntai	•				, wod		Delta Environmental Consultants, Inc. 3330 Data Drive, Suite 100 Rancho Cordova, CA 95670 916/638-2085 • FAX 916/638-8385							LABORATORY SAMPLES SENT TO: F 6-1. Lawla Raula ADDRESS: Landa Paula			
ROJ. NO.	PROJECT N	OCA	TION: 2	1116	wo	min clare I faledaa		oad	NERS				equeste Descript			ADDRESS	s: sem	a pari	
AMPLERS (S	PROJECT N	IANA	GEH:	mi	Med	10 breen			OF CONTAINERS	7,7		Am mreted	* 931			۹,			
LABORA- TORY SAMPLE ID	SAMPLE ID	ם	ATE	TIME	SAMPLE TYPE	SAMP	LE LOCATION		NUMBER	0978	0278	CAM	Moriele *				REM.	ARKS	
	8-9-2	12	-13	1255	soil	Barrel area Barrel area Barrel area	abrid #22	10	1	X	×	X				0	nac	ice_	
	B-10-7			1305		Rarrel aren	Grick#6	5'	1	X	*	X				•			
	B-10-2			1825		Banelora	a Losplan	10'	1	*	*	X							
	B-11-1			1530		And dane	- 15/10/	,	1				X						
	B-12-1			1550		in thean	st. song	10	1				+						
	B-13-1	10	12	1610		thougho	hain 10		1				X						
	Moredo base sine	1	/	1615	V	in therenge of	d 200 yd	<u>.</u>	1				+						
6																	/		
elinquished l	oy: (Signature)			Date	2.0	me Received by: (Si	gnature)	Ret	Inquished	l by: <i>(S</i>	ignatur	*)		D	ate	Tim●	Received by:	(Signature)	
olinquished b	y: (Signature)			Date		ne Received for Lak	coratory by: (Signat	ure)	Date	Tim	• T		and Tim		len				
aled for ship	oment by: (signa	ture)	9/	1 2v	avan	aln		Date/	Time :					s	hipmen	t method:			
ampler Comr	pler Comments: * a deconspect water laach well be perform							Laboratory Commenta:											
n lac	n amy	<u>.</u>	Pa	llou	ved	by filtra	teon and	2											
determ	unation	ox	S	love	dece	mentralio	n conemb	Cond	illon of S	amples									•
-41	Broute in		V	Vhite: Re	eturn v	ith analytical resi	ults to Delta	Yellow	: Labor	atory	Conv	,	Pink: I	Delta'	s Cor)V			

					CriAIN C	اک تار	٥i0	D t					Pag	је <u></u>	Oī <u> }</u>	
PROJ. NO.	Delta Environmen Consultants	ntal s, inc. IAME:			Parta Clarita		Delta Environmental Consultants, inc. 3330 Data Drive, Suite 100 Rancho Cordova, CA 95670 916/638-2085 • FAX 916/638-8385 Analysis Requested & Container Description								plessent to: la Paul en la Pa	
	PROJECT M	ANAGER:	med		est Soledal (myon R	oad	CONTAINERS	7			4					
SAMPLERS (SIG		1 24	ans	on'			ا ا	head	0	70	ostetuk					
LABORA- TORY SAMPLE ID	SAMPLE ID	DATE	TIME	SAMPLE TYPE			NUMBER	rolal	1978		CAM		į	R	EMARKS	
	B-5-1	12-13-90	935	soil	spott to excurred	samp	1	×					an	n ece		
	B-5-2	1 1	950		mert is encurated a	(10)	1	ャ								
1	B-6-1		1015		drain area 5.5	,	1	×								
	B-6-2		1030		draw aren (10)		1	×								
	B-7-1		1140		Banet area shop,	phone			λ.	X	X					
	B-7-2		1145		Barrel aren phosp	Kerous			4	X	×					
	B-8-1		1210	-	Barrel and phosphon	3 beet			X	+	X					
	B-9-1		JL30	1	Burrel and physone	5			X	+	4			/		
Relinquished b	y: (Signature)		Date	T	Received by: (Signature)		nquishe		ignatur	r o)		Date	Time	• Received	by: (Signature)	
telinquished by	r: (Signature)		Date	TI	Ilme Received for Laboratory by: (Signat	ure)	Date	Tim	• 1		and Tim	o: ular			,	
Sealed for ship	ment by: (signa	ture) 90	1019	Va	nen	Date/	Γime /	12-1	3-4	/ 5	30	Shipn	nent method	1: cour	ren	
Sampler Comm	ampler Comments: on il							Laboratory Comments:								
							Condition of Samples						,			

White: Return with analytical results to Delta

Yellow: Laboratory Copy

Pink: Delta's Copy

l :cember 27, 1990 Lab No.: 34161-12

| rmite Division of Whittaker Le116 West Soledad Canyon Road Saugus, California 91350

imple Description: Barrell Grid #5 Area 5'

Sampled By: Hal Hansen

Pate Sampled: December 13, 1990 1 te Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

	Test Results	De TTLC	tection Limit		Test Results	D TTLC	etection Limit
P:ameters	mg/kg	mg/kg	mg/kg	Parameters	mg/kg	mg/kg	mg/kg
Antimony	ND	500	10	Selenium	ND	100	0.5
Arsenic	ND	500	3	Silver	ND	500	3
B; 'ium	ND	10,000	50	Thallium	ND	700	5
Beryllium	ND	75	0.5	Vanadium	13	2,400	10
Cadmium	ND	100	0.5	Zinc	ND	5,000	100
Climomium (VI)	-	500	3			•	
Claromium (Total)	ND	2,500	50				
Cobalt	ND	8,000	50				
Cemper	ND	2,500	10				
Fioride	-	18,000	100				
Lead	4	1,000	4				
Mercury	ND	20	0.1				
M ybdenum	ND	3,500	100				
Nickel	ND	2,000	10				

N = Not detected at or above the concentration of the detection limit.

m: 'kg = ppm

Very truly yours, FRI. ENVIRONMENTAL

Janine Egner, B.S.

Elerironmental Chemist

Darrell H. Nelson Laboratory Director

J 'DHN:mlh

J nuary 3, 1991 Lab No.: 34161-12

B rmite Division of Whittaker 2 116 West Soledad Canyon Road Saugus, California 91350

\$ mple Description: Barrell Grid #5 Area 5'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 E te Received: December 14, 1990 Date Extracted: December 16, 1990 Date Analyzed: January 2, 1991

EPA METHOD 8270 REPORT OF ANALYSIS

C^mpound	Concentration mg/kg	Detection Limit mg/kg
E SE/NEUTRAL EXTRACTABLE-		
PRIORITY POLLUTANTS:		
Acenaphthene	ND	1.0
<i>F</i> enaphthylene	ND	1.0
liline	ND	5.0
Anthracene	ND	1.0
Γ nzidine	ND	5.0
i nzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
P^nzo(b)fluoranthene	ND	1.0
l nzo(k)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
Benzyl Alcohol	ND	2.0
s(2-Chloroethoxy)methane	ND	1.0
L.s(2-Choroethy1)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	, 1.0
s(2-Ethylhexyl)phthalate	ND	1.0
Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
4-Chloroaniline	, ND	2.0
: Chloronaphthalene	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
l benzo(a,h)anthracene	ND	1.0
L.benzofuran	ND	1.0
1,2-Dichlorobenzene	ND	1.0
3-Dichlorobenzene	ND	1.0
4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
Piethylphthalate	ND	1.0
methylphthalate	ND	1.0
bi-n-butylphthalate	ND	1.0

_	ermite	Division	of Whit	taker			-2-
ľ	ab No.:	: 34151-12	2/Barrel	1 Grid	#5	Area	5'

March Marc	ompound	Concentration	Detection Limit
PRIORITY POLLUTANTS:		mg/kg	mg/kg
A-Dinitrotoluene	DDIODITY DOLLITANTS.		
C-Dinitrotoluene		ND	1.0
Di-n-octylphthalate			
2-Diphenyl hydrazine			
luoranthene			
Fluorene			
"exachlorobenzene			
Exachlorobutadiene			
NEXACH Orocyclopentadiene			
Hexachloroethane			
Ideno(1,2,3-c,d)pyrene	Havachlaraethana		
Sophorone ND			
2-Methylnaphthalene			
Iphthalene			
Trobenzene			
N-Nitrosodimethylamine			
Nitrosodi-N-propylamine			
Nitrosodiphenylamine			
2-Nitroaniline			
3-Nitroaniline			
Nitroaniline			
ND 1.0 ND 1.0 ND 1.0 ND 1.0 ND ND ND ND ND ND ND N			
Pyrene ND 1.0 2,4-Trichlorobenzene ND 1.0 ACID EXTRACTABLE PRIORITY POLLUTANTS: 2-Chlorophenol ND 1.0 4-Dichlorophenol ND 1.0 4,4-Dimethylphenol ND 1.0 4,6-Dinitro-o-cresol ND 5.0 4-Dinitrophenol ND 5.0 4-Methylphenol ND 1.0 4-Methylphenol ND 1.0 Nitrophenol ND 1.0 Nitrophenol ND 5.0 P-Chloro-m-cresol ND 2.0 Pontachlorophenol ND 5.0 i enol ND 1.0 2,4,5-Tricholorophenol ND 1.0			
2,4-Trichlorobenzene ND 1.0 ACID EXTRACTABLE PRIORITY POLLUTANTS: 2-Chlorophenol ND 1.0 4-Dichlorophenol ND 1.0 2,4-Dimethylphenol ND 1.0 4.6-Dinitro-o-cresol ND 5.0 4-Dinitrophenol ND 1.0 4-Methylphenol ND 1.0 Nitrophenol ND 5.0 p-Chloro-m-cresol ND 2.0 Pontachlorophenol ND 1.0 2,4,5-Tricholorophenol ND 1.0			
ACID EXTRACTABLE PRIORITY POLLUTANTS: 2-Chlorophenol ND 1.0 4-Dichlorophenol ND 1.0 2,4-Dimethylphenol ND 1.0 4.6-Dinitro-o-cresol ND 5.0 4-Dinitrophenol ND 5.0 - Methylphenol ND 1.0 - Methylphenol ND 1.0 Nitrophenol ND 1.0 - Nitrophenol ND 1.0 - Nitrophenol ND 5.0 - Pontachlorophenol ND 5.0 - Pontachlorophenol ND 1.0 - ND 1			
2-Chlorophenol ND 1.0 4-Dichlorophenol ND 1.0 2,4-Dimethylphenol ND 1.0 4.6-Dinitro-o-cresol ND 5.0 4-Dinitrophenol ND 5.0 - Methylphenol ND 1.0 4-Methylphenol ND 1.0 Nitrophenol ND 1.0 Nitrophenol ND 5.0 P-Chloro-m-cresol ND 1.0 2,4,5-Tricholorophenol ND 1.0	2,4-irichiorobenzene	NU	1.0
4-Dichlorophenol 2,4-Dimethylphenol 4.6-Dinitro-o-cresol 4-Dinitrophenol ND 5.0 Methylphenol ND 1.0 4-Methylphenol NI Nitrophenol NI Nitrophenol NI Nitrophenol NI NI Nitrophenol NI NI NI NI NI NI NI NI NI N			
2,4-Dimethylphenol ND 1.0 4.6-Dinitro-o-cresol ND 5.0 4-Dinitrophenol ND 5.0 L Methylphenol ND 1.0 4-Methylphenol ND 1.0 Nitrophenol ND 1.0 Nitrophenol ND 5.0 p-Chloro-m-cresol ND 5.0 p-chloro-m-cresol ND 2.0 Pontachlorophenol ND 5.0 lenol ND 1.0 2,4,5-Tricholorophenol ND 1.0			
4.6-Dinitro-o-cresol ND 5.0 4-Dinitrophenol ND 5.0 - Methylphenol ND 1.0 4-Methylphenol ND 1.0 Nitrophenol ND 1.0 Nitrophenol ND 5.0 p-Chloro-m-cresol ND 2.0 Pontachlorophenol ND 5.0 lenol ND 1.0 2,4,5-Tricholorophenol ND 1.0	4-Dichiorophenol		
4-Dinitrophenol ND 5.0 Methyl phenol ND 1.0 4-Methyl phenol ND 1.0 Nitrophenol ND 1.0 Nitrophenol ND 5.0 p-Chloro-m-cresol ND 2.0 Pentachlorophenol ND 5.0 i enol ND 1.0 2,4,5-Tricholorophenol ND 1.0	2,4-Dimetry/pneno/		
_ Methyl phenol ND 1.0 4-Methyl phenol ND 1.0 Nitrophenol ND 1.0 Nitrophenol ND 5.0 p-Chloro-m-cresol ND 2.0 Pontachlorophenol ND 5.0 i enol ND 1.0 2,4,5-Tricholorophenol ND 1.0	4.0-DINITTO-O-Cresol		
4-Methyl phenol ND 1.0 Nitrophenol ND 1.0 Nitrophenol ND 5.0 p-Chloro-m-cresol ND 2.0 Pentachlorophenol ND 5.0 ienol ND 1.0 2,4,5-Tricholorophenol ND 1.0	4-UINITropnenoi		
Nitrophenol ND 1.0 Nitrophenol ND 5.0 p-Chloro-m-cresol ND 2.0 Pontachlorophenol ND 5.0 Lenol ND 1.0 2,4,5-Tricholorophenol ND 1.0			
Nitrophenol ND 5.0 p-Chloro-m-cresol ND 2.0 Pontachlorophenol ND 5.0 lenol ND 1.0 2,4,5-Tricholorophenol ND 1.0			
p-Chloro-m-cresol ND 2.0 Pentachlorophenol ND 5.0 i enol ND 1.0 2,4,5-Tricholorophenol ND 1.0	Nitropnenol		
Pentachlorophenol ND 5.0 ienol ND 1.0 2,4,5-Tricholorophenol ND 1.0			
ienol ND 1.0 2,4,5-Tricholorophenol ND 1.0			
2,4,5-Tricholorophenol ND 1.0			·
2.4,0-iricnolorophenol ND 1.0			
	2.4,0-Iricnoloropnenol	ND	1.0

1.J = Not detected at or above the concentration of the detection limit.

1 / kg = ppm

Very truly yours, LiL ENVIRONMENTAL, INC.

lay Sathe, M.S. Lavironmental Chemist

US/DHN:mlh

Darrell H. Nelson Laboratory Director

December 27, 1990 Lab No.: 34161-12

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Barrell Grid #5 Area 5'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) **EPA METHOD 8240** REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	`ug/kg	Compound	ug/kg	ug/kg
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Ch1orobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
-,			Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

reflate

Uday Sathe, M.S.

Environmental Chemist

Darrell H. Nelson Laboratory Director

US/DHN:mlh

i cember 27, 1990 Lub No.: 34161-13

I rmite Division of Whittaker 1 116 West Soledad Canyon Road Saugus, California 91350

! mple Description: Barrell Grid #5 Area 10'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 I te Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

	Test Results	De TTLC	tection Limit		Test Results	TTLC	etection Limit
P: ameters	mg/kg	mg/kg	mg/kg	Parameters	mg/kg	mg/kg	mg/kg
Arttimony	ND	500	10	Selenium	ND	100	0.5
Arsenic	ND	500	3	Silver	ND	500	3
B: ium	ND	10,000	50	Thallium	ND	700	5
B∈.yllium	ND	75	0.5	Vanadium	ND	2,400	10
Cadmium	ND	100	0.5	Zinc	ND	5,000	100
Cloomium (VI)	-	500	3				
Cl omium (Total)	ND	2,500	50				
Cobalt	ND	8,000	50				
Conper	ND	2,500	10				
F oride	-	18,000	100				
Lead	ND	1,000	4				
Mercury	ND	20	0.1				
4c ybdenum	ND	3,500	100				
N∵∴ke1	ND	2,000	10				

NF = Not detected at or above the concentration of the detection limit.

mg/kg = ppm

Very truly yours, FGL ENVIRONMENTAL

Joinne Egner, B.S. En ironmental Chemist

Darrell H. Nelson Laboratory Director

JF /DHN:m1h

anuary 3, 1991 Lab No.: 34161-13

ermite Division of Whittaker 2116 West Soledad Canyon Road Saugus, California 91350

ample Description: Barrell Grid #5 Area 10'

sampled By: Hal Hansen

Date Sampled: December 13, 1990

Ate Received: December 14, 1990

Date Extracted: December 16, 1990

Date Analyzed: January 2, 1991

EPA METHOD 8270 REPORT OF ANALYSIS

	Concentration	Detection Limit
∩mpound	mg/kg	mg/kg
SE/NEUTRAL EXTRACTABLE-	<u> </u>	
PRIORITY POLLUTANTS:		
Acenaphthene	ND	1.0
:enaphthylene	ND	1.0
iline	ND	5.0
Anthracene	ND	1.0
- nzidine	ND	5.0
enzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
Renzo(b)fluoranthene	ND	1.0
enzo(k)fluoranthene	ND	1.0
enzo(g,h,i)perylene	ND	1.0
Benzyl Alcohol	ND	2.0
is(2-Chloroethoxy)methane	ND	1.0
is(2-Choroethy1)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	1.0
is(2-Ethylhexyl)phthalate	ND	1.0
Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
4-Chloroaniline	ND	2.0
Chloronaphthalene	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
benzo(a,h)anthracene	ND	1.0
benzofuran	ND	1.0
1,2-Dichlorobenzene	ND	1.0
3-Dichlorobenzene	ND	1.0
4-Dichlorobenzene	· ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
Diethylphthalate	ND	1.0
methylphthalate	ND ·	1.0
n-butylphthalate	ND	1.0

Lermite Division of Whittaker	-2-	January 3, 1991
Lab No.: 34151-13/Barrell Grid #5 Area		
44	Concentration	Detection Limit
(mpound	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-		
PRIORITY POLLUTANTS:		
4-Dinitrotoluene	ND	1.0
2,6-Dinitrotoluene	ND	1.0
Di-n-octylphthalate	ND	1.0
2-Diphenylhydrazine	ND	1.0
l -uoranthene	ND	1.0
Fluorene	ND	1.0
l'xachlorobenzene	ND	1.0
ł_xachlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
Hexachloroethane	ND	1.0
deno(1,2,3-c,d)pyrene	ND	1.0
1 sophorone	ND	1.0
2-Methylnaphthalene	ND	1.0
1 phthalene	ND	1.0
1 trobenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
Mitrosodi-N-propylamine	ND	1.0
Nitrosodiphenylamine	ND	1.0
2-Nitroaniline	ND	5.0
3-Nitroaniline	ND	5.0
4 Nitroaniline	ND	5.0
Frienanthrene	ND	1.0
Pyrene	ND	1.0
2,4-Trichlorobenzene	ND	1.0
•		
ACID EXTRACTABLE PRIORITY POLLUTANTS:		
? Chlorophenol	ND	1.0
: 4-Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
4.6-Dinitro-o-cresol	ND	5.0
<pre>4-Dinitrophenol</pre>	ND	5.0
2-Methylphenol	ND	1.0
4-Methylphenol	ND	1.0
: Nitrophenol	ND	1.0
4 Nitrophenol	ND .	5.0
p-Chloro-m-cresol	ND	2.0
Fantachlorophenol	ND	5.0
l enol	ND	1.0
2,4,5-Tricholorophenol	ND .	1.0
2.4,6-Tricholorophenol	ND	1.0
		<u>-</u>

Not detected at or above the concentration of the detection limit.

1/kg = ppm

Yary truly yours, I L ENVIRONMENTAL, INC.

l ay Sathe, M.S. Linvironmental Chemist US/DHN:mlh

Darrell H. Nelson Laboratory Director

December 27, 1990 Lab No.: 34161-13

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Barrell Grid #5 Area 10'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	ug/kg	Compound	ug/kg	ug/kg
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Ch1orobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
-			Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S.

Environmental Chemist

Darrell H. Nelson Laboratory Director

US/DHN:mlh



D :ember 27, 1990 LaJ No.: 34161-14

MAR 18:

B mite Division of Whittaker 2 116 West Soledad Canyon Road Saugus, California 91350

S. ple Description: Barrell Grid #17 Area 3'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Die Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

11 meters	Test Results _mg/kg	De TTLC mg/kg	tection Limit mg/kg	Parameters	Test Results mg/kg	D TTLC mg/kg	etection Limit mg/kg
itimony	ND ND	500	10	Selenium	ND	100	0.5
senic	ND	500	3	Silver	ND	500	3
17 um	ND	10,000	50	Thallium	ND	700	5
er_allium	ND	75	0.5	Vanadium	19	2,400	10
ıdmium	ND	100	0.5	Zinc	ND	5,000	100
ır∵nium (VI)	-	500	3				
r nium (Total)	ND	2,500	50				
balt	ND	8,000	50				
pner	ND	2,500	10				
u ^ide	-	18,000	100			•	
au	5	1,000	4				
rcury	ND	20	0.1				
1 odenum	ND	3,500	100				
c :1	10	2,000	10				

Not detected at or above the concentration of the detection limit.

/kq = ppm

ry truly yours, I ENVIRONMENTAL

arine Egner, B.S.

i onmental Chemist

Darrell H. Nelson Laboratory Director

'DHN:m1h

J nuary 3, 1991 Lab No.: 34161-14

B rmite Division of Whittaker 2_116 West Soledad Canyon Road Saugus, California 91350

S nple Description: Barrell Grid #17 Area 3'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990

Date Extracted: December 16, 1990

Date Analyzed: January 2, 1991

EPA METHOD 8270 REPORT OF ANALYSIS

	Concentration	Detection Limit
C apound B SE/NEUTRAL EXTRACTABLE-	<u>mg/kg</u>	mg/kg
PRIORITY POLLUTANTS:		
Acenaphthene	ND	1.0
A :naphthylene	ND	1.0
Auline	ND	5.0
Anthracene	ND	1.0
B izidine	ND	5.0
B izo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
Brnzo(b)fluoranthene	ND	1.0
3⊢ zo(k)fluoranthene	ND	1.0
3enzo(g,h,i)perylene	ND	1.0
Benzyl Alcohol	ND	2.0
o (2-Chloroethoxy)methane	ND	1.0
o(2-Choroethyl)ether	ND	1.0
ois(2-Chloroisopropyl)ether	ND	√1.0
o (2-Ethylhexyl)phthalate	ND	1.0
1 romophenylphenylether	ND	1.0
3utylbenzylphthalate	ND	1.0
1. Chloroaniline	ND	2.0
2. hloronaphthalene	ND	1.0
1-chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
enzo(a,h)anthracene	ND	1.0
). Jenzofuran	ND	1.0
.,2-Dichlorobenzene	ND	1.0
., -Dichlorobenzene	ND	1.0
Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
)i ^th ylphthala te	ND	1.0
)i ethylphthalate	ND	1.0
)i-n-butylphthalate	ND	1.0

Bermite Division of Whittaker	-2-	January 3, 1991
Lah No.: 34161-14/Barrell Grid #17 Area	3'	
	Concentration	Detection Limit
Compound	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-		
ORITY POLLUTANTS:		
2Dinitrotoluene	ND	1.0
2.6-Dinitrotoluene	ND	1.0
)i n-octylphthalate	ND	1.0
I, -Diphenylhydrazine	ND	1.0
	ND	1.0
-luoranthene	ND	1.0
Juorene		
l∈ achlorobenzene	ND	1.0
le_achlorobutadiene	ND	1.0
lexachlorocyclopentadiene	ND	2.0
l∈ achloroethane	ND	1.0
<pre>ir eno(1,2,3-c,d)pyrene</pre>	ND	1.0
[sophorone	ND	1.0
?-Methylnaphthalene	ND	1.0
la hthalene	ND	1.0
licrobenzene	ND	1.0
I-Nitrosodimethylamine	ND	1.0
l- itrosodi-N-propylamine	ND	1.0
Iitrosodiphenylamine	ND	1.0
?-Nitroaniline	ND	5.0
3-"itroaniline	ND ND	5.0
- itroaniline	ND	5.0
henanthrene	ND	1.0
'yrene	ND	1.0
, ,4-Trichlorobenzene	ND	1.0
CID EXTRACTABLE PRIORITY POLLUTANTS:		
- ilorophenol	ND	1.0
, -Dichlorophenol	ND	1.0
,4-Dimethylphenol	ND	1.0
, ODinitro-o-cresol	ND	5.0
, -Dinitrophenol	ND	5.0
-Methylphenol	ND	1.0
-Methylphenol	ND	1.0
- itrophenol	ND	1.0
-mitrophenol	ND	5.0
-Chloro-m-cresol	ND	2.0
e :achlorophenol	ND	5.0
h iol	ND	1.0
,4,5-Tricholorophenol	ND	1.0
, 6-Tricholorophenol	ND	1.0
•		200

D = Not detected at or above the concentration of the detection limit.

 $g_{/} \approx g = ppm$

e' 'truly yours,

G ENVIRONMENTAL, INC.

d: Sathe, M.S. nvironmental Chemist S/DHN:mlh Camery. Ne

Darrell H. Nelson Laboratory Director



December 27, 1990 Lab No.: 34161-14

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Barrell Grid #17 Area 3'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	ug/kg	Compound	ug/kg	<u>ug/kg</u>
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
-,			Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist Darrell H. Nelson Laboratory Director

US/DHN:mlh

December 27, 1990 Lab No.: 34161-15

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Barrell Grid #22 Area 5'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	ug/kg	Compound	ug/kg	ug/kg
Benzene		5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
			Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist

Darrell H. Nelson Laboratory Director

US/DHN:m1h

Field Office Visalia California 93277 TEL: (209) 734-9473 Mobile: (209) 738-6273

January 3, 1991 I b No.: 34161-15

Bermite Division of Whittaker 116 West Soledad Canyon Road ugus, California 91350

fample Description: Barrell Grid area #22/5'

: mpled By: Hal Hansen

Date Received: December 13, 1990

Date Received: December 14, 1990

Date Extracted: December 16, 1990 Date Analyzed: January 2, 1991

	Concentration	Detection Limit
Compound	<u>mg/kg</u>	mg/kg
PASE/NEUTRAL EXTRACTABLE-		
(10((1)) (0000)	÷	
Acenaphthene	ND	1.0
Acenaphthylene	ND	1.0
niline	ND	5.0
ithracene	ND	1.0
Benzidine	ND	5.0
enzo(a)anthracene	ND	1.0
enzo(a)pyrene	ND	1.0
Benzo(b)fluoranthene	ND	1.0
Penzo(k)fluoranthene	ND	1.0
enzo(g,h,i)perylene	ND	1.0
penzyl Alcohol	ND	2.0
bis(2-Chloroethoxy)methane	ND	1.0
is(2-Choroethyl)ether	ND	1.0
_is(2-Chloroisopropyl)ether	ND	1.0
bis(2-Ethylhexyl)phthalate	ND	1.0
-Bromophenylphenylether	ND	1.0
utylbenzylphthalate	ND	1.0
4-Chloroaniline	ND	2.0
<pre>2-Chloronaphthalene</pre>	ND	1.0
-Chlorophenylphenylether	ND	1.0
chrysene	ND	1.0
Dibenzo(a,h)anthracene	ND	1.0
ibenzofuran	ND	1.0
_,2-Dichlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
,3'-Dichlorobenzidine	ND	2.0
Diethylphthalate	ND	1.0
Dimethylphthalate	ND	1.0
)i-n-butylphthalate	ND	1.0

1 b No.: 34151-15/Barrell	Grid	#22	Area	5′	•
•				Concentration	Detection Limit
Compound				mg/kg	mg/kg
E SE/NEUTRAL EXTRACTABLE-					
FAIORITY POLLUTANTS:					
2,4-Dinitrotoluene				ND	1.0
2 5-Dinitrotoluene				ND	1.0
[-n-octylphthalate				ND	1.0
1,2-Diphenylhydrazine				ND	1.0
F'uoranthene				ND	1.0
F uorene				ND	1.0
Hexach1orobenzene				ND	1.0
Hexachlorobutadiene				ND	1.0
+ xachlorocyclopentadiene				ND	2.0
hexach1oroethane				ND	1.0
Indeno(1,2,3-c,d)pyrene				ND	1.0
1 ophorone				ND	1.0
2 Methylnaphthalene				ND	1.0
Naphthalene				ND	1.0
N'itrobenzene				ND	1.0
Nitrosodimethylamine				ND	1.0
N-Nitrosodi-N-propylamine				ND	1.0
N-Nitrosodiphenylamine				ND	1.0
2 Nitroaniline			Ę	ND	5.0
3-Nitroaniline				ND	
4-Nitroaniline				ND	5.0
F enanthrene				ND	5.0
Frene					1.0
1,2,4-Trichlorobenzene				ND ND	1.0
1,2,4-ir ich forobenzene				ND	1.0
/ ID EXTRACTABLE PRIORITY	DALLI	IT AN	TC.		
2-Chlorophenol	PULL	JIAN	13:	ND	1.0
2.4-Dichlorophenol				ND ND	1.0
				ND	1.0
4-Dimethylphenol				ND	1.0
4,6-Dinitro-o-cresol				ND	5.0
2,4-Dinitrophenol				ND	5.0
Methylphenol				ND	1.0
4 Methylphenol				ND	1.0
2-Nitrophenol				ND	1.0
Nitrophenol				ND	5.0
Chloro-m-cresol				ND	2.0
Pentachlorophenol				ND	5.0
Pheno1				ND	1.0
4,5-Tricholorophenol				ND	1.0
2,4,6-Tricholorophenol				ND	1.0

! = Not detected at or above the concentration of the detection limit.

 $r^{\prime}/kg = ppm$

very truly yours, FGL ENVIRONMENTAL, INC.

Mathe

Uday Sathe, M.S. Nironmental Chemist

//DHN:m1h

Canual . The

Darrell H. Nelson Laboratory Director

December 27, 1990 'ab No.: 34161-15

Bermite Division of Whittaker 22116 West Soledad Canyon Road augus, California 91350

Sample Description: Barrell Grid #22 Area 5'

impled By: Hal Hansen

ate Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

		De	tection			D	etection
	Test Results	TTLC	Limit		Test Results	TTLC	Limit
<u>Parameters</u>	mg/kg	mg/kg	mg/kg	<u>Parameters</u>	<u>mg/kg</u>	mg/kg	mg/kg
A :imony	ND	500	10	Selenium	ND	100	0.5
A ;enic	ND	500	3	Silver	ND	5 00	3
Barium	ND	10,000	50	Thallium	ND	700	5
Beryllium	ND	75	0.5	Vanadium	15	2,400	10
C imium	ND	100	0.5	Zinc	ND	5,000	100
Caromium (VI)	-	500	3				
Chromium (Total)	ND	2,500	50				
C palt	ND	8,000	50				
perرِC	12	2,500	10				
Fluoride	-	18,000	100				
L id	5	1,000	4				
M 'cury	ND	20	0.1				
Molvbdenum	ND	3.500	100				

10

2,000

No = Not detected at or above the concentration of the detection limit.

10

 $m_{s}/kg = ppm$

Nicke1

V 'y truly yours, F . ENVIRONMENTAL

Jeanine Egner, B.S. Environmental Chemist

Darrell H. Nelson Laboratory Director

J_/DHN:m1h

ecember 27, 1990

rmite Division of Whittaker 2116 West Soledad Canyon Road Saugus, California 91350

ample Description: Barrell Grid #22 Area 10'

sampled By: Hal Hansen

Date Sampled: December 13, 1990 ite Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

	W4 D34-		tection	· ·	Took Dooulto		etection
) immotone	Test Results	TTLC	Limit	Parameters	Test Results	TTLC	Limit
ameters	mg/kg ND	mg/kg 500	mg/kg 10	Selenium	mg/kg ND	mg/kg 100	mg/kg 0.5
Arsenic	ND	500	3	Silver	ND	500	3
3 ·ium	ND	10,000	50	Thallium	ND	700	5
3 ∤yllium	ND	75	0.5	Vanadium	15	2,400	10
Cadmium	ND	100	0.5	Zinc	ND	5,000	100
35~omium (VI)	-	500	3				
Comfum (Total)	ND	2,500	50				
Cobalt	ND	8,000	50				
Copper	ND	2,500	10	•			
= loride	•	18,000	100				
ad	5	1,000	4				
iercury	ND	20	0.1				
1 lybdenum	ND	3,500	100				
i :kel	10	2,000	10				

" = Not detected at or above the concentration of the detection limit.

na/kg = ppm

/ery truly yours, FGL ENVIRONMENTAL

Joanine Egner, B.S. E /ironmental Chemist

Darrell H. Nelson Laboratory Director

JE/DHN:m1h

¹anuary 17, 1991 ab No.: 34161-16

Bermite Division of Whittaker 2116 West Soledad Canyon Road augus, California 91350

'ample Description: Barrell Grid #22 Area 10'

ampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990

Date Analyzed: January 11, 1991

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	ug/kg	Compound	ug/kg	ug/kg
Benzene	ND	5.0	1,1-Dichloroethene	ND	<u>ug/kg</u> 5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	NO	10.0	cis-1.3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ИD	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
			Xylenes	ND	5.0

ND - Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday/Sathe, M.S.

Environmental Chemist

Darrell H. Nelson Laboratory Director

US/DHN:mih

J nuary 17, 1991 Las No.: 34161-16

B rmite Division of Whittaker 2 116 West Soledad Canyon Road Saugus, California 91350

S mple Description: Barrell Grid Area #22/10'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 D te Received: December 14, 1990 Date Extracted: January 10, 1991 Date Analyzed: January 17, 1991

	Concentration	Detection Limit
Compound	mg/kg	<u>mg/kg</u>
E SE/NEUTRAL EXTRACTABLE-	*	
FRIORITY POLLUTANTS:		
Acenaphthene	ND	1.0
# enaphthylene	ND	1.0
£iline	ND	5.0
Anthracene	ND	1.0
F nzidine	ND	5.0
E nzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
Benzo(b)fluoranthene	ND	1.0
<pre>E nzo(k)fluoranthene</pre>	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
Benzyl Alcohol	ND	2.0
t s(2-Chloroethoxy)methane	ND	1.0
t_s(2-Choroethyl)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	1.0
t's(2-Ethylhexyl)phthalate	ND	1.0
/ Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
4-Chloroaniline	ND	2,0
: Chloronaphthalene	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
benzo(a,h)anthracene	ND	1.0
i benzofuran	ND	1.0
1,2-Dichlorobenzene	ND	1.0
3-Dichlorobenzene	ND	1.0
4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
Diethylphthalate	ND	1.0
methylphthalate	ND	1.0
Ln-butylphthalate	ND	1.0

Bermite Division of Whittaker	-2-	January 3, 1991
_2h No.: 34151-16/Barrell Grid #22	Concentration	Detection Limit
Compoun <u>d</u>		mg/kg
BASE/NEUTRAL EXTRACTABLE-	mg/kg	<u>1137.63</u>
PI ORITY POLLUTANTS:		
2Dinitrotoluene	ND	1.0
2,6-Dinitrotoluene	ND	1.0
D' n-octylphthalate	· ND	1.0
1 :-Diphenylhydrazine	ND	1.0
Figoranthene	ND	1.0
Fluorene	ND	1.0
H (achlorobenzene	. ND	1.0
Hexachlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
H (achloroethane	ND	1.0
I deno(1,2,3-c,d)pyrene	ND	1.0
Isophorone	ND	1.0
2-Methylnaphthalene	ND	1.0
N ohthalene	ND	1.0
Nitrobenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
N Nitrocodi_N_nronviemino	ND	1.0
A Nitrosodiphenylamine	ND	1.0
2-Nitroaniline	ND	5.0
: Nitroaniline	ND	5.0
Nitroaniline	ND	5.0
Phenanthrene	ND	1.0
Pyrene	ND	1.0
2,4-Trichlorobenzene	ND	1.0
7 - 17 17 1011 01 01 01 01 01 01 01 01 01 01 01 0	110	1.0
ACID EXTRACTABLE PRIORITY POLLUTANT		
Chlorophenol	ND	1.0
4-Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
6-Dinitro-o-cresol	ND	5.0
,4-Dinitrophenol	ND	5.0
2-Methylphenol	ND	1.0
^-Methylphenol	, ND	1.0
-Nitrophenol	ND	1.0
4-Nitrophenol	ND	5.0
p-Chloro-m-cresol	ND ND	2.0
antachlorophenol nenol	ND	5.0
2,4,5-Tricholorophenol	ND ND	1.0
^,4,6-Tricholorophenol	ND	1.0 1.0
7.75 Trionstorophenor	III	1.0

ND = Not detected at or above the concentration of the detection limit.

mg/kg = ppm

ery truly yours, GL ENVIRONMENTAL, INC.

Iday Sathe, M.S. Environmental Chemist US/DHN:m1h

Darrell H. Nelson Laboratory Director



ecember 27, 1990 ab No.: 34161-17

"ermite Division of Whittaker 2116 West Soledad Canyon Road Saugus, California 91350

imple Description: Barrell Grid #46 Area 5'

_ampled By: Hal Hansen

Date Sampled: December 13, 1990 ite Received: December 14, 1990

Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

	Test Results	De TTLC	tection Limit		Test Results	TTLC	etection Limit
P 'ameters A. Imony	mg/kg ND	mg/kg 500	mg/kg 10	<u>Parameters</u> Selenium	mg/kg ND	mg/kg 100	mg/kg 0.5
Arsenic	ND	500	3	Silver	ND	500	3
B ium B yllium	ND ND	10,000 75	50 0.5	Thallium Vanadium	ND 19	700 2,400	5 10
Cadmium Chromium (VI)	ND -	100 500	0.5 3	Zinc	ND	5,000	100
Cloomium (Total)	ND ND	2,500 8,000	50 50				
Copper Filoride	ND	2,500 18,000	10 100				
_(.d	5	1,000	4				
lercury l∈"ybdenum	ND ND	20 3,500	0.1 100				
√ ke}	13	2,000	10				

IP = Not detected at or above the concentration of the detection limit.

ng/kg = ppm

/ y truly yours, FGL ENVIRONMENTAL

leanine Egner, B.S. Ir ironmental Chemist

Darrell H. Nelson Laboratory Director

E/DHN:mlh

Field Office Visalia California 93277 TEL: [209] 734-9473 Mobile: (209) 738-6273

January 17, 1991 ab No.: 34161-17

Bermite Division of Whittaker ?2116 West Soledad Canyon Road Gaugus, California 91350

Sample Description: Barrell Grid #46 Area 5'

Sampled By: Hal Hansen

Jate Sampled: December 13, 1990 Date Received: December 14, 1990

Date Analyzed: January 11, 1991

VOLATILE ORGANICS IN SOIL (GC/MS)

EPA METHOD 8240

REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	<u>ug/kg</u> 5.0	Compound	ug/kg	ug/kg
Benzene	-ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
•			Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist Darrell H. Nelson Laboratory Director

US/DHN:m1h

J nuary 17, 1991 Lap No.: 34161-17

B rmite Division of Whittaker 2 116 West Soledad Canyon Road Saugus, California 91350

S mple Description: Barrell Grid Area #46 0 5'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 C te Received: December 14, 1990

Date Extracted: January 10, 1991 Date Analyzed: January 17, 1991

	Concentration	Detection Limit
C^mpound	mg/kg	mg/kg
B SE/NEUTRAL EXTRACTABLE-		
PRIORITY POLLUTANTS:		
Acenaphthene	ND	1.0
# enaphthylene	ND	1.0
Amiline	ND	5.0
Anthracene	ND	1.0
E nzidine	ND	5.0
E_nzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
Ponzo(b)fluoranthene	ND	1.0
E nzo(k)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
Benzyl Alcohol	ND	2.0
t s(2-Chloroethoxy)methane	ND	1.0
t.s(2-Choroethy1)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	1.0
l's(2-Ethylhexyl)phthalate	ND	1.0
4 Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
4-Chloroaniline	ND	2.0
<pre>Chloronaphthalene</pre>	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
[benzo(a,h)anthracene	ND	1.0
L.benzofuran	ND	1.0
1,2-Dichlorobenzene	ND	1.0
: 3-Dichlorobenzene	ND	1.0
: 4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
Diethylphthalate	ND	1.0
l methylphthalate	ND	1.0
Ln-butylphthalate	ND	1.0

Bermite Division of Whittaker	-2-	January 3, 1991
_ab No.: 34151-17/Barrell Grid #46	Concentration	Detection Limit
Campound	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-		<u>m3/ 1/3</u>
PF ORITY POLLUTANTS:		
2, -Dinitrotoluene	ND	1.0
2,6-Dinitrotoluene	ND	1.0
Di-n-octylphthalate	ND	1.0
l, -Diphenylhydrazine	ND	1.0
Fluoranthene	ND	1.0
Fluorene	ND	1.0
de achlorobenzene	ND	1.0
Hemachlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
He~achioroethane	ND	1.0
<pre>i: eno(1,2,3-c,d)pyrene</pre>	ND	1.0
Isophorone	ND	1.0
2-Methylnaphthalene	ND	1.0
N: hthalene	ND	1.0
Nicrobenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
N litrosodi-N-propylamine	, ND	1.0
N litrosodiphenylamine	ND	1.0
2-Nitroaniline	ND	5.0
3 Mitroaniline	ND	5.0
4 litroaniline	ND	5.0
Phenanthrene	ND	1.0
Pyrene	ND	1.0
1 ?,4-Trichlorobenzene	ND	1.0
ACID EXTRACTABLE PRIORITY POLLUTANT		
2 hlorophenol	ND	1.0
2 1-Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
4 5-Dinitro-o-cresol	ND	5.0
2 1-Dinitrophenol	ND	5.0
2-dethylphenol	ND	1.0
4-Methylphenol	ND	1.0
2 vitrophenol	ND	1.0
4 Aitrophenol	ND	5.0
p-Chloro-m-cresol	ND	2.0
P ntachlorophenol	ND	5.0
Figure 1	ND	1.0
2,4,5-Tricholorophenol	ND	1.0
2 4.6-Tricholorophenol	ND	1.0

NU = Not detected at or above the concentration of the detection limit.

 $n_{-p}/kg = ppm$

V ry truly yours, I L ENVIRONMENTAL, INC.

l ay Sathe, M.S. Environmental Chemist US/DHN:mlh

Darrell H. Nelson Laboratory Director



D :ember 27, 1990 Lao No.: 34161-18

B Amite Division of Whittaker 2_116 West Soledad Canyon Road Saugus, California 91350

S mple Description: Barrell Grid #46 Area 10'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 L te Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

	Test Results	TTLC De	tection Limit	Test Results	Detection TTLC Limit		
'a ameters	mg/kg			Parameters	mg/kg	mg/kg	mg/kg
intimony	NO	<u>mg/kg</u> 500	mg/kg 10	Selenium	ND	100	0.5
irsenic	ND	500	3	Silver	N D	500	3
3e fum	68	10,000	50	Thallium	ND	700	5
36gyllium	ND	75	0.5	Vanadium	22	2,400	10
admium	ND	100	0.5	Zinc	ND	5,000	100
omium (VI)	•	500	3			•	
i omium (Total)	ND	2,500	50				
Cobalt	NO	8,000	50				
coper	10	2,500	10				
" oride	•	18,000	100				
_ead	6	1,000	4				
fercury	ND	20	0.1				
4 ybdenum	ND	3,500	100				
1. ∠ke1	18	2,000	10				

Not detected at or above the concentration of the detection limit.

mr/kg = ppm

Very truly yours, FGL ENVIRONMENTAL

J inine Egner, B.S. E vironmental Chemist

Darrell H. Nelson Laboratory Director

JF/DHN:m1h

<u>Field_Office</u> Visalia California 93277 TEL: (209) 734-9473 Mobile: (209) 738-6273

January 17, 1991 ab No.: 34161-18

Bermite Division of Whittaker 2116 West Soledad Canyon Road augus, California 91350

Cample Description: Barrell Grid #46 Area 10'

ampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990

Date Analyzed: January 11, 1991

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	ug/kg	Compound	ug/kg	ug/kg
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1.3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1.4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
-,			Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg - ppb

Very truly yours, FGL ENVIRONMENTAL ... ryfathe

Uday Sathe, M.S.

Environmental Chemist

Darrell H. Nelson Laboratory Director

US/DHN:mih

J juary 17, 1991 Las No.: 34161-18

B mite Division of Whittaker 2 116 West Soledad Canyon Road Saugus, California 91350

S mple Description: Barrell Grid Area #46 @ 10'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 D te Received: December 14, 1990 Date Extracted: January 10, 1991 Date Analyzed: January 17, 1991

	Concentration	Detection Limit
Compound	mg/kg	mg/kg
E SE/NEUTRAL EXTRACTABLE-		
FRIORITY POLLUTANTS:	ND.	1.0
Acenaphthene	ND	1.0
A enaphthylene	ND	1.0
A iline	ND	5.0
Anthracene	ND	1.0
Prnzidine	ND	5.0
E_nzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
Benzo(b)fluoranthene	ND	1.0
E nzo(k)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND .	1.0
Benzyl Alcohol	ND	2.0
t s(2-Chloroethoxy)methane	ND	1.0
t s(2-Choroethyl)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	1.0
t's(2-Ethylhexyl)phthalate	ND .	1.0
4 Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
4-Chloroaniline	ND	2.0
2 Chloronaphthalene	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
<pre>[benzo(a,h)anthracene</pre>	ND	1.0
l benzofuran	ND	1.0
1,2-Dichlorobenzene	ND	1.0
1 3-Dichlorobenzene	ND	1.0
: 4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
Diethylphthalate	ND	1.0
l methylphthalate	ND	1.0
Ln-butylphthalate	ND	1.0

Bmite Division of Whittaker	-2-	January 3, 1991
Lab No.: 34151-18/Barrell Grid #46		Canada y Ct 1331
200 11011 01101 1070111111 1111 1111	Concentration	Detection Limit
C apound	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-	<u> </u>	<u>uiarira</u>
PRIORITY POLLUTANTS:		
2 I-Dinitrotoluene	ND	1.0
2,j-Dinitrotoluene	ND	1.0
Di-n-octylphthalate	ND	1.0
1 :-Diphenylhydrazine	ND	1.0
F Joranthene	ND	1.0
Fluorene	ND	1.0
H=:cachlorobenzene	ND	1.0
H (achlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
Hexachloroethane	ND	1.0
I leno(1,2,3-c,d)pyrene	ND	1.0
Lophorone	ND	1.0
2-Methylnaphthalene	ND	1.0
N >hthalene	ND	1.0
N :robenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
N-Nitrosodi-N-propylamine	ND	1.0
N litrosodiphenylamine	` ND	1.0
2-Nitroaniline	ND	5.0
3-Nitroaniline	ND	5.0
4 litroaniline	ND	5.0
Pananthrene	ND	1.0
Pyrene	ND	1.0
1 ?,4-Trichlorobenzene	ND -	1.0
AND FUTBANTING BRIADING BALLIE AND		
ACID EXTRACTABLE PRIORITY POLLUTANT		
2-Chlorophenol	ND	1.0
2 1-Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
4,6-Dinitro-o-cresol	ND	5.0
2 \-Dinitrophenol	ND	5.0
2 Methylphenol	ND	1.0
4-Methylphenol	ND	1.0
2 Nitrophenol	ND	1.0
4 litrophenol	ND	5.0
p-Chloro-m-cresol Pentachlorophenol	ND ND	2.0
Panol	ND	5.0

 N_{-} = Not detected at or above the concentration of the detection limit.

 $\pi / kg = ppm$

P anol

Very truly yours, F L ENVIRONMENTAL, INC.

2,4,5-Tricholorophenol 2,4,6-Tricholorophenol

U sy Sathe, M.S. E vironmental Chemist US/DHN:m1h

ND

ND

ND

Darrell H. Nelson Laboratory Director 1.0

1.0

1.0

APPENDIX G

Laboratory Data Sheets for the Soil Samples Collected From the Building 228 Area

December 27, 1990 Lab No.: 34161-1

Lermite Division of Whittaker 22116 West Soledad Canyon Road 1 ugus, California 91350

Sample Description: Paint Spill Grid #2/5'

Sampled By: Hal Hansen

l te Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

•				etection			
	Test Results	TTLC"	Limit		Test Results	TTLC	Limit
Parameters	_mg/kg	mg/kg	mg/kg	Parameters	mg/kg	mg/kg	mg/kg
Antimony	ND	500	10	Selenium	ND	100	0.5
A: enic	ND	500	3	Silver	ND	500	3
Barium	ND	10,000	. 50	Thallium	ND	700	5
Beryllium	ND	75	0.5	Vanadium	19	2,400	10
C: mium	ND	100	0.5	Zinc	ND	5,000	100
Cle∵omium (VI)	-	500	3			·	
Chromium (Total)	ND	2,500	50				
Cebalt `	ND	8,000	50				
Coper	16	2,500	10				
Fluoride	-	18,000	100				
Lead	8	1,000	4				
Mc 'cury	ND	20	0.1				
Morybdenum	ND	3,500	100				
Nickel	18	2,000	10		,		

NL = Not detected at or above the concentration of the detection limit.

m 'kg = ppm

Very truly yours, F . ENVIRONMENTAL

Janine Egner, B.S. Environmental Chemist

Darrell H. Nelson Laboratory Director

J /DHN:mlh

J-nuary 3, 1991 L b No.: 34161-1

Bermite Division of Whittaker 2 116 West Soledad Canyon Road Saugus, California 91350

S mple Description: Paint Spill Grid #2/5'

Simpled By: Hal Hansen

Date Sampled: December 13, 1990 C-te Received: December 14, 1990

Date Extracted: December 16, 1990 Date Analyzed: January 2, 1991

Compound	Concentration mg/kg	Detection Limit mg/kg
F**SE/NEUTRAL EXTRACTABLE-		
I IORITY POLLUTANTS:		
Acenaphthene	ND	1.0
Amenaphthylene	ND	1.0
/ iline	ND	5.0
Anthracene	ND	1.0
Benzidine	ND	5.0
l nzo(a)anthracene	ND	1.0
L_nzo(a)pyrene	ND	1.0
Benzo(b)fluoranthene	ND	1.0
Γ nzo(k)fluoranthene	ND	1.0
l nzo(g,h,i)perylene	ND	1.0
Benzyl Alcohol	ND	2.0
his(2-Chloroethoxy)methane	ND	1.0
s(2-Choroethy1)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	1.0
bis(2-Ethylhexyl)phthálate	1.3	1.0
Bromophenylphenylether	ND	1.0
_utylbenzylphthalate	ND	1.0
4-Chloroaniline	ND	2.0
^.Chloronaphthalene	ND	1.0
Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
Dibenzo(a,h)anthracene	ND	1.0
benzofuran	ND .	1.0
1,2-Dichlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
,4-Dichlorobenzene	ND	1.0
.,3'-Dichlorobenzidine	N D	2.0
Diethylphthalate	ND	1.0
<pre>imethylphthalate</pre>	ND	1.0
i-n-butylphthalate	ND	1.0

·	Concentration	Detection Limit
<u>C empound</u>	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-		
P TORITY POLLUTANTS:		
2 J-Dinitrotoluene	ND	1.0
2,6-Dinitrotoluene	ND	1.0
Di-n-octylphthalate	ND	1.0
1 ?-Diphenylhydrazine	ND	1.0
Filoranthene	ND	1.0
Fluorene	ND	1.0
H cachlorobenzene	ND	1.0
H=xachlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
H ^{as} kachloroethane	ND	1.0
I_leno(1,2,3-c,d)pyrene	ND	1.0
Isophorone	ND	1.0
2-Methylnaphthalene	ND	1.0
N ohthalene	ND	1.0
Nitrobenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
N Vitrosodi-N-propylamine	ND	1.0
Naditrosodiphenylamine	ND	1.0
2-Nitroaniline	ND	5.0
3 Nitroaniline	ND	5.0
4 Mitroaniline	ND	5.0
Phenanthrene	ND	1.0
Pyrene	ND	1.0
1 2,4-Trichlorobenzene	ND	1.0
	110	1.0
ACID EXTRACTABLE PRIORITY POLLUTANTS:		
2 Chlorophenol	ND	1.0
2,4-Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
4 6-Dinitro-o-cresol	ND	5.0
2 4-Dinitrophenol	ND	5.0
2-Methylphenol	ND	1.0
4-Methylphenol	ND	1.0
2 Nitrophenol	ND	1.0
4-Nitrophenol	ND	5.0
p-Chloro-m-cresol	ND	2.0
f ntachlorophenol	ND	5.0
F.:enol	ND	1.0
2,4,5-Tricholorophenol	ND	1.0
4,6-Tricholorophenol	ND	1.0
,	NU	1.0

ND = Not detected at or above the concentration of the detection limit.

my/kg = ppm

\end{align* ry truly yours, \all ENVIRONMENTAL, INC.

lay Sathe, M.S.

Environmental Chemist "S/DHN:mlh

Cannot . Mr

Darrell H. Nelson Laboratory Director

December 27, 1990 Lab No.: 34161-1

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Paint Spill Grid #2/5'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990

Date Received: December 14, 1990

Date Extracted: December 17, 1990

Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	ug/kg	Compound	ug/kg	ug/kg
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
-		-	Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist Darrell H. Nelson Laboratory Director

US/DHN:mlh

[cember 27, 1990
Lab No.: 34161-2

I rmite Division of Whittaker 2-116 West Soledad Canyon Road Saugus, California 91350

!_mple Description: Paint Spill Grid #2/10'

Sampled By: Hal Hansen

Pate Sampled: December 13, 1990 I te Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

	Test Results	TTLC De	tection Limit		Test Kesults	TTLC	etection Limit
ameters	mg/kg	mg/kg	mg/kg	<u>Parameters</u>	mg/kg	mg/kg	mg/kg
intimony	ND	500	10	Selenium	ND	100	0.5
Arsenic	ND	500	3	Silver	ND	500	3
3: ˈium	ND	10,000	50	Thallium	ND	700	5
3eryllium	ND	75	0.5	Vanadium	19	2,400	10
Cadmium	ND	100	0.5	Zinc	ND	5,000	100
Cl omium (VI)	-	500	3			•	
Claromium (Total)	ND	2,500	50				
Cobalt	ND	8,000	50				
C⇔per	12	2,500	10				
Floride	-	18,000	100				
_ead	6	1,000	4				
ler cury	ND	20	0.1				
¶ ybdenum	ND	3,500	100				
1.cke1	14	2,000	10				

Not detected at or above the concentration of the detection limit.

n 'kg = ppm

Very truly yours, FRI. ENVIRONMENTAL

J inine Egner, B.S.
Environmental Chemist

Darrell H. Nelson Laboratory Director

J 'DHN:m1h

ND

ND

ND

ND

ND

ND

NO = Not detected at or above the concentration of the detection limit.

... J/kg = ppm

. Nitrophenol

ienol

p-Chloro-m-cresol

entachlorophenol

2,4,5-Tricholorophenol

2.4,6-Tricholorophenol

Pry truly yours,

IL ENVIRONMENTAL, INC.

iay Sathe, M.S.
chvironmental Chemist
US/DHN:mlh

Darrell H. Nelson

Laboratory Director

5.0

2.0

5.0

1.0

1.0

1.0

nuary 3, 1991 Lab No.: 34161-2

I rmite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

: mple Description: Paint Spill Grid #2/10'

Sampled By: Hal Hansen

Prite Sampled: December 13, 1990 | te Received: December 14, 1990

Date Extracted: December 16, 1990 Date Analyzed: January 2, 1991

	Concentration	Detection Limit
(mpound	mg/kg	mg/kg
SE/NEUTRAL EXTRACTABLE-	•	
PRIORITY POLLUTANTS:	••-	
Asenaphthene	ND	1.0
enaphthylene	ND	1.0
Aniline	ND	5.0
Anthracene	ND	1.0
1 mzidine	ND	5.0
lenzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
nzo(b)fluoranthene	ND	1.0
l nzo(k)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
Ponzyl Alcohol	ND	2.0
s(2-Chloroethoxy)methane	ND	1.0
bis(2-Choroethyl)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	1.0
s(2-Ethylhexyl)phthalate	ND	1.0
. Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
Chloroaniline	ND	2.0
: Chloronaphthalene	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
benzo(a,h)anthracene	ND	1.0
bibenzofuran	ND	1.0
1.2-Dichlorobenzene	ND	1.0
3-Dichlorobenzene	ND	1.0
_,4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
[ethylphthalate	ND	1.0
methylphthalate	ND	1.0
Di-n-butylphthalate	ND	1.0
	• • •	

December 27, 1990 Lab No.: 34161-2

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Paint Spill Grid #2/10'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	`ug/kg	Compound	ug/kg	
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
-,2 5 toll of oction	110		Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

M

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist

Darrell H. Nelson Laboratory Director

US/DHN:m1h

l cember 27, 1990 Lab No.: 34161-3

Prmite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

mple Description: Paint Spill Grid #5/5'

Sampled By: Hal Hansen

Inte Sampled: December 13, 1990 Inte Received: December 14, 1990

Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

	Test Results	TTLC	tection Limit		Test Results	TTLC	etection Limit
P _{see} ameters	mg/kg	mg/kg	mg/kg 10	<u>Parameters</u>	mg/kg	mg/kg	mg/kg
Antimony	ND	500	10	Selenium	ND	100	0.5
Amsenic	ND	500	3	Silver	ND	500	3
B: 'ium	ND	10,000	50	Thallium	ND	700	5
Beryllium	ND	75	0.5	Vanadium	17	2,400	10
Cadmium	ND	100	0.5	Zinc	ND	5,000	100
C omium (VI)	-	500	3			•	
Chromium (Total)	ND	2,500	50				
Cobalt	ND	8,000	50				
Ciper	16	2,500	10				
Fioride	-	18,000	100				
Lead	6	1,000	4				
Mercury	ND	20	0.1				
M ybdenum	ND	3,500	100				
Nickel	14	2,000	10				

N = Not detected at or above the concentration of the detection limit.

m / kg = ppm

Very truly yours, For ENVIRONMENTAL

J inine Egner, B.S. E. ironmental Chemist

Darrell H. Nelson Laboratory Director

J /DHN:mlh

Bermite Division of Whittaker	-2-	January 3, 1991
Lab No.: 34161-3/Paint Spill Grid #5/5	•	
•	Concentration	Detection Limit
<u>C⊮npound</u>	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-		
PTORITY POLLUTANTS:		
2 1-Dinitrotoluene	ND	1.0
2,6-Dinitrotoluene	ND	1.0
Di-n-octylphthalate	ND	1.0
1 2-Diphenylhydrazine	ND	1.0
Filoranthene	ND	1.0
Fluorene	ND	1.0
H kachlorobenzene	ND	1.0
Haxachlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
H xachloroethane	ND	1.0
l_deno(1,2,3-c,d)pyrene	ND	1.0
Isophorone	ND	1.0
2-Methylnaphthalene	ND	1.0
h phthalene	ND	1.0
Mitrobenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
Nitrosodi-N-propylamine	ND	1.0
Nitrosodiphenylamine	ND	1.0
2-Nitroaniline	ND	5.0
? Nitroaniline	ND	5.0
<pre> Nitroaniline </pre>	ND	5.0
Phenanthrene	ND	1.0
Pyrene	ND	1.0
2,4-Trichlorobenzene	ND	1.0
ACID EXTRACTABLE PRIORITY POLLUTANTS:		
<pre>Chlorophenol</pre>	ND	1.0
2_4-Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
6-Dinitro-o-cresol	ND	5.0
/ A Dinituant and	110	5.0

ND

ND = Not detected at or above the concentration of the detection limit.

lny/kg = ppm

4-Dinitrophenol

p-Chloro-m-cresol

| ntachlorophenol

2,4,5-Tricholorophenol

↑ 4,6-Tricholorophenol

2-Methylphenol 4-Methylphenol

: Nitrophenol

4-Nitrophenol

l enol

ery truly yours, iL ENVIRONMENTAL, INC.

lay Sathe, M.S. Environmental Chemist US/DHN:mlh Darrell H. Nelson

Darrell H. Nelson Laboratory Director 5.0

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1.0

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1.0

nuary 3, 1991 Lab No.: 34161-3

I rmite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Lumple Description: Paint Spill Grid #5/5'

Sampled By: Hal Hansen

I te Sampled: December 13, 1990 I te Received: December 14, 1990 Date Extracted: December 16, 1990 Date Analyzed: January 2, 1991

	Concentration	Detection Limit
mpound	mg/kg	mg/kg
LASE/NEUTRAL EXTRACTABLE-		
PRIORITY POLLUTANTS:	ND	1.0
enaphthene	ND ND	1.0
enaphthylene	ND	1.0
Aniline	ND	5.0
Anthracene	ND	1.0
enzidine	ND	5.0
penzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
enzo(b)fluoranthene	ND	1.0
enzo(k)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
^enzyl Alcohol	ND	2.0
is(2-Chloroethoxy)methane	ND	1.0
bis(2-Choroethyl)ether	ND	1.0
his(2-Chloroisopropyl)ether	ND	. 1.0
is(2-Ethylhexyl)phthalate	ND	1.0
Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
-Chloroaniline	ND	2.0
-Chloronaphthalene	ND	1.0
4-Chlorophenylphenylether	ND	1.0
î'irysene	ND	1.0
ibenzo(a,h)anthracene	ND	1.0
Dibenzofuran	ND	1.0
¹ ,2-Dichlorobenzene	ND	1.0
,3-Dichlorobenzene	ND	1.0
.,4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
iethylphthalate	ND	1.0
imethylphthalate	ND	1.0
Di-n-butylphthalate	ND .	1.0

December 27, 1990 Lab No.: 34161-3

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Paint Spill Grid #5/5'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	ug/kg	Compound	ug/kg	ug/kg
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
	,,,		Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist

Darrell H. Nelson Laboratory Director

US/DHN:m1h

l cember 27, 1990
Lab No.: 34161-4

I rmite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

: mple Description: Paint Spill Grid #5/10'

Sampled By: Hal Hansen

Price Sampled: December 13, 1990 I te Received: December 14, 1990

Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

		De	tection			D	etection
	Test Results	TTLC	Limit		Test Results	TTLC	Limit
2 ameters	_mg/kg	mg/kg	<u>mg/kg</u> 10	<u>Parameters</u>	mg/kg	mg/kg	mg/kg 0.5
Antimony	ND	500	10	Selenium	ND	100	
Arsenic	ND	500	3	Silver	ND	500	3 5
3≀ ium	75	10,000	50	Thallium	ND	700	
3eryllium	ND	75	0.5	Vanadium	28	2,400	10
Cadmium	ND	100	0.5	Zinc	ND	5,000	100
Ci omium (VI)	-	500	3				
Cl∞omium (Total)	ND	2,500	50				
Cobalt	ND	8,000	50				
C per	14	2,500	10				
Floride	-	18,000	100				
Lead	8	1,000	4				
1encury	ND	20	0.1				
1 ybdenum	ND	3,500	100				
tickel	20	2,000	10				

Not detected at or above the concentration of the detection limit.

ng kg = ppm

/ery truly yours,
FC! ENVIRONMENTAL

Jo nine Egner, B.S. En.ironmental Chemist

Darrell H. Nelson Laboratory Director

JI DHN:mlh

Lab No.: 34161-4/Paint Spill Grid #5/1	10'	
•	Concentration	Detection Limit
C ₂::1pound	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-		<u></u>
PTORITY POLLUTANTS:		
2 -Dinitrotoluene	ND	1.0
2,6-Dinitrotoluene	ND	1.0
Di-n-octylphthalate	ND	1.0
1 !-Diphenylhydrazine	ND	1.0
Figoranthene	ND ND	1.0
Fluorene	ND ND	
H (achlorobenzene		1.0
	ND	1.0
H_(achlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
H (achloroethane	ND	1.0
I_leno(1,2,3-c,d)pyrene	ND	1.0
Isophorone	ND	1.0
2-Methylnaphthalene	ND	1.0
N ohthalene	ND	1.0
Nycrobenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
N litrosodi-N-propylamine	ND	1.0
N_litrosodiphenylamine	ND	1.0
2-Nitroaniline	ND	5.0
3 Nitroaniline	ND	5.0
4 Vitroaniline	ND	5.0
Phenanthrene	ND ND	
Pyrene		1.0
	ND	1.0
1 ?,4-Trichlorobenzene	ND	1.0
ACID EVIDACIADLE DRIORYTY DOLLUTIUM		
ACID EXTRACTABLE PRIORITY POLLUTANTS:		
2°hlorophenol	ND	1.0
2 1-Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
4 5-Dinitro-o-cresol	ND	5.0
2 1-Dinitrophenol	ND	5.0
2=Methylphenol	ND	1.0
4-Methylphenol	ND	1.0
2 Nitrophenol	ND	1.0
4-Nitrophenol	ND	5.0
p-Chloro-m-cresol	ND	2.0
P ntachlorophenol	ND	5.0
P anol	ND ND	1.0
2,4,5-Tricholorophenol	ND	
2 1,6-Tricholorophenol	ND	1.0
- 130 II ICHOTOLOPHEROL	מט	1.0

NU = Not detected at or above the concentration of the detection limit.

 $\pi_3/kg = ppm$

US/DHN:mlh

V ry truly yours, F L ENVIRONMENTAL, INC.

U ay Sathe, M.S. Environmental Chemist

Darrell H. Nelson Laboratory Director

anuary 3, 1991 Lab No.: 34161-4

ermite Division of Whittaker 2116 West Soledad Canyon Road Saugus, California 91350

ample Description: Paint Spill Grid #5/10'

Sampled By: Hal Hansen

nate Sampled: December 13, 1990 ate Received: December 14, 1990

Date Extracted: December 16, 1990 Date Analyzed: January 2, 1991

	Concentration	Detection Limit
mpound	mg/kg	mg/kg
ISE/NEUTRAL EXTRACTABLE-	•	
PRIORITY POLLUTANTS:		
Acenaphthene	ND	1.0
enaphthylene	ND	1.0
Aniline	ND	5.0
Anthracene	ND	1:0
∍nzidine	ND	5.0
_ >nzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
~:nzo(b)fluoranthene	ND	1.0
nzo(k)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
Renzyl Alcohol	ND	2.0
is(2-Chloroethoxy)methane	ND	1.0
uis(2-Choroethyl)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	. 1.0
is(2-Ethylhexyl)phthalate	ND	1.0
-Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
Chloroaniline	ND	2.0
-Chloronaphthalene	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
benzo(a,h)anthracene	ND	1.0
benzofuran	ND	1.0
1,2-Dichlorobenzene	ND	1.0
3-Dichlorobenzene	ND	1.0
,4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
ethylphthalate	ND	1.0
methylphthalate	ND	1.0
Di-n-butylphthalate	ND	1.0



December 27, 1990 Lab No.: 34161-4

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Paint Spill Grid #5/10'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990
Date Received: December 14, 1990
Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	ug/kg	Compound	ug/kg	
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
			Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist Darrell H. Nelson Laboratory Director

US/DHN:m1h

D cember 27, 1990 Lap No.: 34161-5

B rmite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Simple Description: Paint Spill Grid #9/5'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 D te Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

		De	tection			D	etection
	Test Results	TTLC	Limit		Test Results	TTLC	Limit
'a_ameters	mg/kg	mg/kg	mg/kg	<u>Parameters</u>	mg/kg	mg/kg	mg/kg
intimony	ND	500	10	Selenium	ND	100	0.5
trsenic	ND	500	3	Silver	ND	500	3 5
3a ium	ND	10,000	50	Thallium	ND	700	
3eryllium	ND	75	0.5	Vanadium	14	2,400	10
:admium	ND	100	0.5	Zinc	ND	5,000	100
ch omium (VI)	-	500	3				
Chapmium (Total)	ND	2,500	50				
Cobalt	ND	8,000	50				
c-per	ND	2,500	10				
1 oride	-	18,000	100				
.ead	5	1,000	4				
lercury	ND	20	0.1				
1c ybdenum	ND	3,500	100				
lickel	12	2,000	10				

iD = Not detected at or above the concentration of the detection limit.

ig 'kg = ppm

'ery truly yours, 'G' ENVIRONMENTAL

J∈ nine Egner, B.S.

ir ironmental Chemist

JE 'DHN:m1h

Darrell H. Nelson

Laboratory Director

Bermite Division of Whittaker	-2-	January 2 1001
Lah No.: 34161-5/Paint Spill Grid	_	January 3, 1991
Law No.: 54101-5/raint Spill Grid	Concentration	Detection Limit
Compound	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-	mg/kg	<u> </u>
PI ORITY POLLUTANTS:		
2, Dinitrotoluene	ND	1.0
2,6-Dinitrotoluene	ND	1.0
Jin-octylphthalate	ND	1.0
1, -Diphenylhydrazine	ND	1.0
FTuoranthene	ND	1.0
Fluorene	ND	1.0
He achlorobenzene	ND	1.0
Hexachlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
Hc tachloroethane	ND	1.0
Ii,,eno(1,2,3-c,d)pyrene	ND	1.0
Isophorone	ND	1.0
2.Methylnaphthalene	ND	1.0
Naththalene	ND	1.0
Nitrobenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
N. itrosodi-N-propylamine	ξ ND	1.0
N. Mitrosodiphenylamine	ND	1.0
2-Nitroaniline	ND	5.0
3 ditroaniline	ND	5.0
4 litroaniline	ND	5.0

ND

ND

ND

ACID EXTRACTABLE PRIORITY POLLUTANTS:		
2 hlorophenol	ND	1.0
2, -Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
4 3-Dinitro-o-cresol	ND	5.0
2	ND	5.0
2-Methylphenol	ND	1.0
4 Methylphenol	ND	1.0
2 litrophenol	ND	1.0
4-Nitrophenol	ND	5.0
p-Chloro-m-cresol	ND	2.0
P itachlorophenol	ND	5.0
Panol	ND	1.0
2,4,5-Tricholorophenol	ND	1.0
2 1,6-Tricholorophenol	ND	1.0

ND = Not detected at or above the concentration of the detection limit.

mg/kg = ppm

Phenanthrene

1 !,4-Trichlorobenzene

Pyrene

V my truly yours, F._ ENVIRONMENTAL, INC.

U sathe, M.S. Environmental Chemist Us/DHN:mlh

Darrell H. Nelson Laboratory Director 1.0

1.0

1.0

J nuary 3, 1991 Lab No.: 34161-5

B rmite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Somple Description: Paint Spill Grid #9/5'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 C te Received: December 14, 1990 Date Extracted: December 16, 1990 Date Analyzed: January 2, 1991

C npound	Concentration mg/kg	Detection Limit mg/kg
E SE/NEUTRAL EXTRACTABLE-	<u> </u>	1119713
PRIORITY POLLUTANTS:		
**enaphthene	ND	1.0
A enaphthylene	ND	1.0
Affiline	ND	5.0
Anthracene	ND	1.0
E nzidine	ND	5.0
Benzo(a)anthracene	' ND	1.0
Benzo(a)pyrene	ND	1.0
Enzo(b) fluoranthene	ND	1.0
E_nzo(k)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
Ponzyl Alcohol	ND	2.0
i s(2-Chloroethoxy)methane	ND	1.0
bis(2-Choroethyl)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	1.0
l s(2-Ethylhexyl)phthalate	ND	1.0
4-Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
Cachloroaniline	ND	2.0
<pre>2.Chloronaphthalene</pre>	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
[benzo(a,h)anthracene	ND	1.0
Dibenzofuran	ND	1.0
1.2-Dichlorobenzene	ND	1.0
: 3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
[ethylphthalate	ND	1.0
I methylphthalate	ND	1.0
Di-n-butylphthalate	ND	1.0

December 27, 1990 Lab No.: 34161-5

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Paint Spill Grid #9/5'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	`ug/kg	Compound	ug/kg	ug/kg
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
•			Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

rass

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist

Darrell H. Nelson Laboratory Director

US/DHN:m1h

ecember 27, 1990 Lab No.: 34161-6

ermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

ample Description: Paint Spill Grid #9/10'

Sampled By: Hal Hansen

nate Sampled: December 13, 1990 ite Received: December 14, 1990

Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

	Test Results	TTLC	tection Limit		Test Results	TTLC	etection Limit
Prameters	mg/kg	mg/Kg	mg/kg	<u>Parameters</u>	mg/kg	mg/kg	mg/kg
Antimony	ND	500	10	Selenium	ND	100	0.5
Amsenic	ND	500	3	Silver	ND	500	3
B 'ium	ND	10,000	50	Thallium	ND	700	5
Bëryllium	ND	75	0.5	Vanadium	11	2,400	10
Cadmium	ND	100	0.5	Zinc	ND	5,000	100
C omium (VI)	-	500	3			·	
Canomium (Total)	ND	2,500	50				
Cobalt	ND	8,000	50				
Coper	ND	2,500	10				
Fuoride	-	18,000	100				
Lead	4	1,000	4				
Mercury	ND	20	0.1				
M lybdenum	ND	3,500	100				
Nickel	ND	2,000	10				

N = Not detected at or above the concentration of the detection limit.

m / kg = ppm

Very truly yours, FOL ENVIRONMENTAL

Janine Egner, B.S.

E. vironmental Chemist

Darrell H. Nelson Laboratory Director

J /DHN:mlh

ran no.: 34101-0/rainc shill and #a/10		
A 100 and a 100	Concentration	Detection Limit
Compound	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-		
P TORITY POLLUTANTS:	No	1.0
2_4-Dinitrotoluene	ND	1.0
2,6-Dinitrotoluene	ND	1.0
Di-n-octylphthalate	ND	1.0
1_2-Diphenylhydrazine	ND	1.0
Filoranthene	ND	1.0
Fluorene	ND	1.0
H xachlorobenzene	ND	1.0
H ex achlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
F xachloroethane	ND	1.0
I‱deno(1,2,3-c,d)pyrene	ND	1.0
Isophorone	ND	1.0
2-Methylnaphthalene	ND	1.0
<pre>P phthalene</pre>	ND	1.0
NTtrobenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
Nitrosodi-N-propylamine	ND	1.0
New Nitrosodiphenylamine	ND .	1.0
2-Nitroaniline	ND	5.0
<pre>S Nitroaniline</pre>	ND	5.0
4Nitroaniline	ND	5.0
Phenanthrene	ND	1.0
Parene	ND	1.0
2,4-Trichlorobenzene	ND	1.0
,	No.	1.0
ACID EXTRACTABLE PRIORITY POLLUTANTS:		
2 Chlorophenol	ND	1.0
2.4-Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
6-Dinitro-o-cresol	ND .	5.0
4-Dinitrophenol	ND	
2-Methylphenol		5.0
4 Methyl phenol	ND ND	1.0
Nitrophenol	ND ND	· 1.0
4"Nitrophenol	ND	1.0
p-Chloro-m-cresol	ND	5.0
ntachlorophenol	ND	2.0
I meach or ophenor	ND ND	5.0
2,4,5-Tricholorophenol	ND ND	1.0
24,6-Tricholorophenol	ND ND	1.0
TIOTOTOPHEROI	ND	1.0

 $N\ddot{D}$ = Not detected at or above the concentration of the detection limit.

my/kg = ppm

iry truly yours,

I law Sathe, M.S. Environmental Chemist IIS/DHN:mlh

Darrell H. Nelson Laboratory Director

inuary 3, 1991 Lab No.: 34161-6

ermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

_ample Description: Paint Spill Grid #9/10'

Sampled By: Hal Hansen

ite Sampled: December 13, 1990 ite Received: December 14, 1990 Date Extracted: December 16, 1990 Date Analyzed: January 2, 1991

EPA METHOD 8270 REPORT OF ANALYSIS

mpound	Concentration mg/kg	Detection Limit mg/kg
ASE/NEUTRAL EXTRACTABLE-	may va	<u></u>
PRIORITY POLLUTANTS:		
*;enaphthene	ND	1.0
enaphthylene	ND	1.0
Aniline	ND	5.0
Anthracene	ND	1.0
enzidine	ND	5.0
Lenzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
enzo(b)fluoranthene	ND	1.0
enzo(k)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
nanzyl Alcohol	· ND	2.0
is(2-Chloroethoxy)methane	ND	1.0
bis(2-Choroethyl)ether	ND	1.0
his(2-Chloroisopropyl)ether	ND	1.0
is(2-Ethylhexyl)phthalate	ND	1.0
Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
-Chloroaniline	ND	2.0
-Chloronaphthalene	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
ibenzo(a,h)anthracene	ND '	1.0
Dibenzofuran	ND	1.0
1,2-Dichlorobenzene	ND	1.0
,3-Dichlorobenzene	ND	1.0
.,4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
iethy1phtha1ate	ND	1.0
imethylphthalate	ND	1.0
Di-n-butylphthalate	ND	1.0



December 27, 1990 Lab No.: 34161-6

Bermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Paint Spill Grid #9/10'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	`ug/kg	Compound	ug/kg	
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
-,,-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,_		Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist

Darrell H. Nelson Laboratory Director

US/DHN:m1h

lecember 27, 1990 Lab No.: 34161-7

ermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Cample Description: Paint Spill Grid #10/3'

Sampled By: Hal Hansen

Tite Sampled: December 13, 1990 ite Received: December 14, 1990

Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

HAZARDOUS WASTE CHARACTERIZATION REPORT OF ANALYSIS

	Test Results	TTLC De	tection Limit		Test Results	D TTLC	etection Limit
Pawameters	_mg/kg	mg/kg	mg/kg	Parameters	mg/kg	mg/kg	mg/kg
Antimony	ND	500	10	Selenium	ND	100	0.5
Armenic .	ND	500	3	Silver	ND	50 0	3
B;ium	ND	10,000	50	Thallium	ND	700	5
Beryllium	ND	75	0.5	Vanadium	13	2,400	10
Cadmium	ND	100	0.5	Zinc	ND	5,000	100
Cl omium (VI)	-	500	3				
Chromium (Total)	ND	2,500	50				
Cobalt	ND	8,000	50				
C⇔per	ND	2,500	10				
F. oride	-	18,000	100				
Lead	5	1,000	4				
Me∞cury	ND	20	0.1				
M ybdenum	ND	3,500	100				
Nîcke1	11	2,000	10				

N = Not detected at or above the concentration of the detection limit.

 $m \cdot kg = ppm$

Very truly yours, FO'. ENVIRONMENTAL

Janine Egner, B.S. Environmental Chemist

Darrell H. Nelson Laboratory Director

J 'DHN:mlh

Lab No.: 34161-//Paint Spill Grid #10,	/3′	
· · ·	Concentration	Detection Limit
Compound	mg/kg	mg/kg
BASE/NEUTRAL EXTRACTABLE-		
F™IORITY POLLUTANTS:		
2_4-Dinitrotoluene	ND	1.0
2,6-Dinitrotoluene	ND	1.0
Di-n-octylphthalate	ND	1.0
1 2-Diphenylhydrazine	ND	1.0
Filoranthene	ND	1.0
Fluorene	ND ND	
nii		1.0
F xachlorobenzene	ND	1.0
H.xachlorobutadiene	ND	1.0
Hexachlorocyclopentadiene	ND	2.0
F-xachloroethane	ND	1.0
l_deno(1,2,3-c,d)pyrene	ND	1.0
Isophorone	ND	1.0
2 _™ Methylnaphthalene	ND	1.0
♪ phthalene	ND	1.0
Mitrobenzene	ND	1.0
N-Nitrosodimethylamine	ND	1.0
Nitrosodi-N-propylamine	ND	1.0
Nitrosodiphenylamine	ND	1.0
2-Nitroaniline	ND	5.0
3 Nitroaniline	ND	5.0
4 Nitroaniline	ND	5.0
Phenanthrene	ND	1.0
Pyrene	ND	1.0
2,4-Trichlorobenzene	ND	
1 2,4-11 ICITIOTODEIIZEIIE	NU	1.0
ACID EVIDACIADIC DOIODITY DOLLUTANICA		
ACID EXTRACTABLE PRIORITY POLLUTANTS:	MD	
2°Chlorophenol	ND	1.0
2.4-Dichlorophenol	ND	1.0
2,4-Dimethylphenol	ND	1.0
6-6-Dinitro-o-cresol	ND	5.0
2 4-Dinitrophenol	ND	5.0
2-Methylphenol	ND	1.0
4-Methylphenol	ND	· 1.0
2 Nitrophenol	ND	1.0
4-Nitrophenol	ND	5.0
p-Chloro-m-cresol	ND	2.0
Fintachlorophenol	ND	5.0
F _w eno1	ND	1.0
2,4,5-Tricholorophenol	ND	1.0
2 4,6-Tricholorophenol	ND	1.0
,	110	1.0

ND = Not detected at or above the concentration of the detection limit.

 $n_3/kg = ppm$

1 ry truly yours, I L ENVIRONMENTAL, INC.

Matte

l ay Sathe, M.S. **Environmental Chemist** US/DHN:m1h

Darrell H. Nelson Laboratory Director

i nuary 3, 1991 Lab No.: 34161-7

E rmite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Paint Spill Grid #10/3'

Sampled By: Hal Hansen

Cote Sampled: December 13, 1990 Lete Received: December 14, 1990 Date Extracted: December 16, 1990 Date Analyzed: January 2, 1991

EPA METHOD 8270 REPORT OF ANALYSIS

(mpound	Concentration mg/kg	Detection Limit mg/kg
E.SE/NEUTRAL EXTRACTABLE-	- mar-i-a	
PRIORITY POLLUTANTS:		
#-enaphthene	ND	1.0
/ enaphthylene	ND	1.0
Aniline	ND	5.0
Anthracene	ND	1.0
l nzidine	ND	5.0
L-nzo(a)anthracene	ND	1.0
Benzo(a)pyrene	ND	1.0
f nzo(b)fluoranthene	ND	1.0
Inzo(k)fluoranthene	ND	1.0
Benzo(g,h,i)perylene	ND	1.0
Penzyl Alcohol	ND	2.0
l s(2-Chloroethoxy)methane	ND	1.0
bīs(2-Choroethyl)ether	ND	1.0
bis(2-Chloroisopropyl)ether	ND	. 1.0
s(2-Ethylhexyl)phthalate	ND	1.0
4 Bromophenylphenylether	ND	1.0
Butylbenzylphthalate	ND	1.0
4 Chloroaniline	ND	2.0
: Chloronaphthalene	ND	1.0
4-Chlorophenylphenylether	ND	1.0
Chrysene	ND	1.0
[benzo(a,h)anthracene	ND	1.0
Dibenzofuran	ND	1.0
1,2-Dichlorobenzene	ND	1.0
3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
3,3'-Dichlorobenzidine	ND	2.0
[ethylphthalate	ND	1.0
l methylphthalate	ND	1.0
Di-n-butylphthalate	ND	1.0



December 27, 1990 Lab No.: 34161-7

Sermite Division of Whittaker 22116 West Soledad Canyon Road Saugus, California 91350

Sample Description: Paint Spill Grid #10/3'

Sampled By: Hal Hansen

Date Sampled: December 13, 1990 Date Received: December 14, 1990 Date Extracted: December 17, 1990 Date Analyzed: December 26, 1990

VOLATILE ORGANICS IN SOIL (GC/MS) EPA METHOD 8240 REPORT OF ANALYSIS

		Detection Limit			Detection Limit
Compound	ug/kg	`ug/kg	Compound	ug/kg	ug/kg
Benzene	ND	5.0	1,1-Dichloroethene	ND	5.0
Bromodichloromethane	ND	5.0	trans-1,2-Dichloroethene	ND	5.0
Bromoform	ND	5.0	1,2-Dichloropropane	ND	5.0
Bromomethane	ND	10.0	cis-1,3-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0	trans-1,3-Dichloropropene	ND	5.0
Chlorobenzene	ND	5.0	Ethyl Benzene	ND	5.0
Chloroethane	ND	10.0	Methylene Chloride	ND	5.0
Chloroform	ND	5.0	1,1,2,2-Tetrachloroethane	ND	5.0
Chloromethane	ND	10.0	Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0	Toluene	ND	5.0
1,2-Dichlorobenzene	ND	5.0	1,1,1-Trichloroethane	ND	5.0
1,3-Dichlorobenzene	ND	5.0	1,1,2-Trichloroethane	ND	5.0
1,4-Dichlorobenzene	ND	5.0	Trichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0	Trichlorofluoromethane	ND	5.0
1,2-Dichloroethane	ND	5.0	Vinyl Chloride	ND	10.0
		•••	Xylenes	ND	5.0

ND = Not Detected at or above the concentration of the detection limit.

ug/kg = ppb

Very truly yours, FGL ENVIRONMENTAL

Uday Sathe, M.S. Environmental Chemist Darrell H. Nelson Laboratory Director

US/DHN:m1h

					CHAIN OF	ငပန္၊င)DY					rage	<u>'</u> <u>OI </u> <u>~</u>		
PROJ. NO.	PROJECT L	ntal s, Inc. IAME: &	1:22/16	We	anta Clarita I Roledad Canyon Roas	3330 E Ranch 916/63				-8385 equested & Description		LABORATORY SAMPLES SENT TO: + G-L Santa Paula ADDRESS: Santa Paula			
AMPLERS (S	ignature)				o brian	- ATMO					:				
	2/a	·l2	ans	en		P.			10						
LABORA- TORY SAMPLE ID	SAMPLE ID	DATE		SAMPLE TYPE		NUMBER	0978	07 29	CAN ASS				REMARKS		
	B-1-/ 5°	12-1	715	aoil	Paint spill Griel #2	5 1						Q	n icl		
	B-1-2		740		Paint spill Grid #2	10 1									
	8-2-1		800		Paint spill orid # 5	TQ 1									
	B-2-2		815		Paint spill Grid # 5	10-1									
,	B-3-1		835	П	Paint spill and #9 5			П							
	B-3-1		8 50		Paint spill oriel #9 10										
	B-4-1		910		Paint spill GridHO 3		1	1	1		•		V		
		1		T											
A 100 Page 1	by: (Signature) Hemoe	n	Date レンパ		Time Received by: (Signature)	Relinquish	d by: (S	Signatu	ire)		Date	Tim●	Received by: (Signature)		
telinquished t	by: (Signature)		Date	7	Time Received for Laboratory by: (Signature)	Date	Tim	10		und Time: Bula	w				
Sealed for ship	pment by: (signa	ture) Z	Lal 2	Las	ver	Date/Time	12-	13.9	0 5	20	Shipme	nt method:	Courier		
Sampler Com	ments: (9~	vi	e			Laboratory C	ommen	ta:							
						Condition of	Samples	1:							
			White: F	leturn	with analytical results to Delta Ye	ellow: Labo	oratory	Cop	у	Pink: Del	ta's Co	ру			

APPENDIX H

Summary of the Results of the Chemical Analyses for California Assessment Manual Metals for Background Soil Samples

BACKGROUND AREA METAL CONCENTRATIONS All Values are mg/kg (ppm)

SAMPLE	SAMPLE													
I.D.	DEPTH(FT)	ANTIMONY	ARSENIC	BARIUM	BERYLIUM	CADMIUM	CHRONIUM	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM
BGA-2323-1	0. 8-0 .5	(10.0	4.0	50	⟨8.5	(0. 5	(58.0	(10.0	4.0	(0.1	(19. 0	(8. 5	(3.0	(5.0
B6A-2323-2	0.5-1.0	(10.0	3.0	(58	(0.5	(0. 5	(50.0	(10.0	(3.0	(0.1	(10.0	(0. 5	(3.6	(5.0
BGA-2323-3	1.0-2.0	(10.0	5.0	76	(0.5	(0. 5	(50.0	(10.0	(3.0	(0.1	20.0	(0. 5	(3.0	(5.8
B6A-2323-4	2.0-3.0	(10.0	(3.0	(50	(0.5	(0. 5	(56. 8	(10.0	(3.0	(0.1	{10.0	(0.5	(3.0	(5.0
86A-2323-5	3.8-4.0	(16.6	4.0	(58	(0.5	(0. 5	√58.8	(10.0	(3.0	(0.1	(1 8. 6	₹0.5	⟨3.€	⟨5.0
B6A-2323-6	4.0-5.0	(10.0	(3.0	(58	(0.5	(0. 5	(50.0	(10.0	(3.0	(0. 1	(10. 0	(6. 5	⟨3.0	(5. 0
BGA-2822-1	6.8-0. 5	(10.0	5.0	53	(8. 5	(0. 5	(50.0	(18.0	4.0	(0.1	(10.0	(0.5	(3.0	(5.0
B6A-2822-2	6.5 –1.0	(10.0	4.0	(56	(8. 5	(0.5	(50.0	(10.0	12.0	(0.1	(10.0	(0.5	(3.0	(5.0
B6A-2822-3	1.0-2.0	(10.0	4.0	(58	(0.5	(0. 5	(50.0	(10.0	(3.0	(0. 1	(10.0	(0.5	(3.0	(5.0
86A-2822-4	2.0-3.0	(10.0	(3.8	(58	(0.5	(0.5	(50.0	(10.0	(3.0	(0.1	⟨10.0	(0.5	(3.0	(5. 0
BGA-2822-5	3.8-4.8	(10.0	5.0	(58	(0.5	(0.5	(50.0	(10.0	(3.0	(0.1	{18.0	(0. 5	(3.6	(5.0
BGA-2822-6	4.0-5.0	(10.0	6.0	(58	⟨€.5	(0.5	(50.0	₹10.0	(3.0	(0.1	{10.0	⟨0.5	⟨3.0	⟨5. €
BGA-6115-1	9.9-8. 5	(10.0	5.0	52	(0.5	(0.5	(50.0	23.0	4.0	(0.1	⟨19.8	(0. 5	⟨3.0	(5.0
BGA- 6 115-2	0.5-1.0	(10.0	4.0	64	(0.5	(0.5	(50.0	(10.0	4.0	(0.1	(10.0	(0.5	(3.0	⟨5.0
BGA-0115-3	1.0-2.0	(10.0	4.0	(50	(0.5	(0.5	(50.0	14.0	4.0	(0. 1	(10.0	(0.5	(3.0	(5.0
BGA-0115-4	2.0-3.0	(10.0	5.0	56	(0.5	(0.5	(50.8	(10.0	4.0	(0.1	(10.0	(0.5	(3.0	(5.0
BGA-0115-5	3.0-4.0	(10.0	4.0	(50	(0.5	(0.5	(50.0	(10.0	4.0	(0.1	(10.0	(0.5	(3.0	(5.0
BGA-0115-6	4.0-5.0	(10.0	6.0	(50	(0.5	⟨0.5	(58.0	(10.0	(3.0	(0.1	(10.0	(0.5	(3.0	(5.0
BGA-1223-1	0.0-6. 5	(10.0	5.0	(50	(0. 5	(0.5	(50.0	(10.0	⟨3.0	(0.1	{10.0	(0.5	(3.0	(5. 0
BGA-1223-2	0.5-1.0	(10.0	6.0	(58	(0.5	(0.5	(56.0	(10.0	(3.0	(0.1	(10, 0	(0.5	(3.0	(5.0
B6A-1223-3	1.0-2.0	(10.0	6.0	(58	(0.5	(0.5	(50.0	(10.0	(3.6	(8.1	(10.0	(0.5	(3.0	(5.0
B6A-1223-4	2.0-3.0	(10.0	5.0	(58	(0.5	(0.5	(50.0	(10.0	(3.0	(0.1	(10.0	(0.5	(3.8	(5.0
BGA-1223-5	3.8-4.0	(10.0	5.0	(50	(0.5	(0.5	(50.6	(10.0	(3.0	(0.1	(10.0	(0.5	(3.0	(5.0
BGA-1223-6	4.0-5.0	(10.0	6.0	(50	(0.5	(0.5	(50.0	(10.0	(3.0	(0.1	(10.0	(0.5	(3.0	(5.0
STATISTICAL ANALYSIS		ANTIMONY	ARSENIC	BARIUM	BERYLIUM	CADMIUM	CHROMIUM	COPPER	LEAD	MERCURY	NICKEL	SELENIUM	SILVER	THALLIUM
DETECTION LIMITS		10.0	3.0	50.0	0.5	6. 5	50.0	10.0	3.0	0. i	10.0	0. 5	3.0	5.0
LEMBER OF BACKGOME CAN	m m /-b)	24	24	24	24	24	24	24	24	24	24	24	24	24
NUMBER OF BACKGRND SAM	PLES (NO)	C 9	C- 4											
Background Mean (XL)		10.000	4.583	52.125	6. 500	0. 568	50.000	10.708	3.667	0.100	10.417	0.500	3.000	5.000
BACKGROUND VARIANCE (S	6b2)	0.000	0. 993	33.859	8.00 0	0.000	0.000	7.267	3.222	0.000	3.993	9.000	0.800	0.000
BACKGROUND POPULATION	STD DEV.	0.000	0.9 97	5.819	0.000	0.000	0.000	2.685	1.795	0.000	1.998	0.000	0.000	9.000
BACKGROUND SAMPLE STD	DEV.	0.000	1.018	5.944	9.000	0.000	0.880	2.742	1.834	0.690	2.041	0.0 00	0.000	0.000

NOTES:

All values less than the detection limits have been given values equal to the detection limit for purposes of calculation

T-Statistic (t*) and the Comparison T-Statistic are not defined when the Sample Variance (Sm2) and the Background Variance (Sb2) are both equal to zero.

The statistics in this table are defined in 48 CFR Part 264, App. IV—Cochran's Approximation to the Behrens-Fisher Students' T-Test.

[&]quot;--" = Analysis not run